Jason Freeman Professor and Chair School of Music, College of Design Georgia Institute of Technology

Curriculum Vitae December 22, 2022

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	Earned Degrees Employment History Honors and Awards Research, Scholarship, and Creative Activities Teaching Service

Jason Freeman Professor School of Music, College of Design Georgia Institute of Technology

I. Earned Degrees

D.M.A	2005	Columbia University, New York, New York Major: Composition Dissertation: <i>Glimmer</i> , for chamber orchestra and audience
M. A.	2001	Columbia University, New York, New York Major: Composition Thesis: <i>Resolutions</i> , for chamber ensemble
B. A.	1999	Yale University, New Haven, Connecticut Major: Music summa cum laude

II. Employment History

<u>Title</u>	Employer	Dates of Employment
Chair, School of Music	Georgia Institute of Technology	2018 – present
Professor of Music	Georgia Institute of Technology	2016 – present
Interim Director, Center for Music Tech.	Georgia Institute of Technology	2013 – 2014
Interim Director of Graduate Studies	Georgia Institute of Technology	2013 – 2014
Associate Professor of Music	Georgia Institute of Technology	2012 – 2016
Assistant Professor of Music	Georgia Institute of Technology	2006 – 2012
Visiting Assistant Professor of Music	Georgia Institute of Technology	2005 - 2006

III. Honors and Awards

- 1. Best Paper Award, <u>Web Audio Conference</u>, for "Alternator: A General-Purpose Generative Music Player" (co-authored with my student Ian Clester) (2022).
- 2. Georgia Tech Class of 1934 Student Recognition of Excellence in Teaching Award (2020).
- 3. Best Website for Teaching and Learning, <u>American Association of School Librarians</u>, for *EarSketch* (2018).
- 4. Sustained Impact in the Arts, <u>Georgia Tech Research Corporation Progress and Service Award</u>, for *EarSketch* (2017).
- 5. Engagement Excellence Award, <u>National Center for Women & Information Technology (NCWIT)</u>, for *EarSketch* (2017).

- 6. Nominee, Best Paper Award, <u>Audio Mostly Conference</u>, for "Turn-Taking and Chatting in Collaborative Music Live Coding" (co-authored with Anna Xambó, Pratik Shah, Gerard Roma, and Brian Magerko) (2017).
- 7. Nominee, Best Paper Award, <u>IEEE Integrated STEM Education Conference (ISEC 2017)</u>, for "Incorporating Music into an Introductory College Level Programming Course for Non-Majors" (coauthored with Tacksoo Im, Sebastien Siva, Brian Magerko, Greg Hendler, Shelly Engelman, Morgan Miller, Brandi Villa, and Tom McKlin) (2017).
- 8. Georgia Tech Class of 1940 Course Survey Teaching Effectiveness Award (2016).
- 9. Highlight, White House Fact Sheet on Computer Science for All included information about EarSketch (2016).
- 10. Participant, Provost's Emerging Leaders Program at Georgia Tech (2016-2017).
- 11. Fellow, Hesburgh Award Teaching Fellows at Georgia Tech (2014).
- 12. Honoree, <u>Webby Awards: Social Media Campaigns</u>, as audio development lead for Coca Cola's advertising campaign for the 2012 London Olympics (2013).
- 13. Impact Award, <u>GVU Center at Georgia Tech</u>, in recognition of contributions to the GVU Center, to Sonic Generator, and to music technology at Georgia Tech on occasion of the center's 20th anniversary (2012).
- 14. Bronze Prize, Best Integrated Campaign Led by Mobile, <u>Cannes Lions International Festival of Creativity</u>, as audio development lead for Coca-Cola's advertising campaign for the 2012 London Olympics (2012).
- 15. Citation for Outstanding Leadership and Vision in Arts Education, Office of Fine and Performing Arts, Atlanta Public Schools (2012).
- 16. Best Artwork Award, <u>ACM Creativity & Cognition</u> (2011), for *LOLC*. 1 out of 33 submissions (~3%) received an award.
- 17. Second Prize, Mauricio Kagel Composition Competition (2010), for *Piano Etudes*. **3 out of 190 entrants** (~2%) received awards.
- 18. Jury Selection, <u>Bourges International Competition for Electroacoustic Music and Electronic Art</u> (2009), in the "New Practices of Net Art" category, for *Piano Etudes*. **89 out of 735 entrants (~12.1%) were honored.**
- 19. Award, American Composers Forum Encore Program (2008). Awarded jointly with pianist Jenny Lin.
- 20. Special Award, <u>Yvar Mikhashoff Trust for New Music</u> (2008). Awarded jointly with pianist Jenny Lin. 3 out of nearly 100 applications (~3%) were funded.
- 21. Award, <u>American Music Center</u> Composer Assistance Program (2004), with support from the Helen Whitaker Fund, the Aaron Copland Fund for Music, the Mary Flagler Cary Charitable Trust, and the Edward T. Cone Foundation.
- 22. Honorable Mention, <u>Transmediale International Art Festival Award</u>, Berlin, Germany (2002), for *Telephone Etude #1: Shakespeare Cuisinart*. **16 out of over 800 entrants (~2%) were honored.**

- 23. Winner, <u>ASCAP / Morton Gould Young Composer Award</u> (2000). **23 out of 406 entrants** (~**5.7%) were honored.**
- 24. Recipient, ASCAP Plus Award (annually, 2000 2015).
- 25. Winner, Yale University Louis Sudler Prize (1999).

IV. Research, Scholarship, and Creative Activities

A. Published Books, Book Chapters, and Edited Volumes

(* indicates work done while at Georgia Tech)

A1. Books

Nothing to Report

A2. Refereed Book Chapters

- *Freeman, J., Magerko, B., Edwards, D., Miller, M., Engelman, S., Moore, R., Xambó, A., and McKlin, T. (2017). "Learning With EarSketch," in L. Pottier (ed.), <u>Innovative Tools and</u> <u>Methods for Teaching Music and Signal Processing</u>. Paris, France: Presses Des Mines. Frenchlanguage edition published in 2018 by Maison des Sciences de l'Homme Paris Nord as Revue Francophone Informatique and Musik volume 6.
- 2. *Freeman, J. (2015). "Listening, Movement, Creativity, and Technology," in S. Mass (ed.), Thresholds of Listening. New York, New York: Fordham University Press.
- 3. *Freeman, J. (2010). "Reading a Poem," in <u>K2010</u>. Vienna, Austria: Universal Edition. Universal Edition. (Musical score in juried collection.)
- 4. *Freeman, J. (2009). "Storage in Collaborative Networked Art," in H. Thorington, J. Green, and E. Navas (eds.), networked: a (networked_book) about (networked_art). Available at http://networkedbook.org/.

A3. Edited Volumes

- 1. *Lerch, A., Freeman, J., and Paradis, M. (eds.) (2016). <u>Proceedings of the 2016 Web Audio Conference</u> (WAC 2016). Available at https://smartech.gatech.edu/handle/1853/54577.
- 2. *Nees, M., Walker, B., and Freeman, J. (eds.) (2012). <u>Proceedings of the 2012 International Conference on Auditory Display</u> (ICAD 2012). Available at http://smartech.gatech.edu/handle/1853/44392.
- 3. *Freeman, J., and Clay, A. (eds.) (2010). "Virtual Scores and Realtime Playing," Contemporary Music Review (special issue), 21:1.

B. Refereed Publications and Submitted Articles

- B1. Published and Accepted Journal Articles (student collaborators in bold)
 - 1. *McCall, L., Freeman, J., McKlin, T., Lee, T., Magerko, B., and Horn, M. (2023). "Complementary Roles of CS + Music Platforms in Student Learning" in <u>Computer Music</u> Journal (accepted and in press, publication expected in early 2023).
 - 2. *Griffith, A., Katuka, G., Wiggins, J., Boyer, K., Freeman, J., Magerko, B., and McKlin, T.

- (2022). "Investigating the Relationship Between Dialogue States and Partner Satisfaction During Co-Creative Learning Tasks," in <u>International Journal of Artificial Intelligence in</u> Education, 1-40.
- 3. *Wanzer, D., McKlin, T., Freeman, J., Magerko, B., and Lee, T. (2020). "Promoting Intentions to Persist in Computing: An Examination of Six Years of the EarSketch Program," in Computer Science Education.
- 4. *Xambo, A., Lerch, A., and Freeman, J. (2019). "Music Information Retrieval in Live Coding: A Theoretical Framework," in Computer Music Journal, 42:4, 9-25.
- 5. *Freeman, J., Magerko, B., Edwards, D., McKlin, T., Lee, T., and Moore, R. (2019). "EarSketch: Engaging Broad Populations in Computing Through Music," in <u>Communications of the Association for Computing Machinery (CACM)</u>, 62:9.
- 6. *Roma, G., Xambo, A., and Freeman, J. (2018). "User-independent Accelerometer Gesture Recognition for Participatory Mobile Music," in <u>Journal of the Audio Engineering Society</u>, 66:6, 430-438.
- 7. *Xambo, A., Roma, G., **Shah, P., Tsuchiya, T.**, Freeman, J., and Magerko, B. (2018). "Turntaking and Chatting in Remote and Co-Located Collaborative Music Live Coding," in <u>Journal of the Audio Engineering Society</u>, 66:6, 253-266.
- 8. *Magerko, B., Freeman, J., McKlin, T., Reilly, M., Livingston, E., McCoid, S., Crews-Brown, A. (2016). "*EarSketch*: Thick Authenticity in a STEAM-based Approach for Underrepresented Populations in High School Computer Science Education," in <u>ACM Transactions on Computing Education</u>, 16:4, 14.1-14.25.
- 9. *Freeman, J. and Magerko, B. (2016). "Iterative Composition, Coding, and Pedagogy: A Case Study in Live Coding With EarSketch," in <u>Journal of Technology, Music, and Education</u>, Intellect, 9:1, 57-74.
- 10. *Freeman, J., Xie, S., Tsuchiya, T., Shen, W., Chen, Y., Weitzner, N. (2015). "Using *massMobile*, a Flexible, Scalable, Rapid Prototyping Audience Participation Framework, in Large-Scale Live Musical Performances," in <u>Digital Creativity</u>, Taylor and Francis, 26:3-4, 228-244.
- 11. *Lee, S., and Freeman, J. (2013). "Real-time Music Notation in Mixed Laptop-Acoustic Ensembles," in Computer Music Journal, MIT Press, 37:4, 24-36.
- 12. *McCoid, S., Freeman, J., Magerko, B., Michaud, C., Jenkins, T., Mcklin, T., and Kan, H. (2013). "EarSketch: An Integrated Approach to Teaching Introductory Computer Music," in Organised Sound, Cambridge University Press, 18:2, 146-160.
- 13. *Weitzner, N., Freeman, J., Chen, Y., and Garrett, S. (2013). "massMobile: Towards a Flexible Framework for Large-Scale Participatory Collaborations in Live Performances," in Organised Sound, Cambridge University Press, 18:1.
- 14. *Freeman, J., DiSalvo, C., Nitsche, M., and **Garrett, S.** (2012). "Rediscovering the City with *UrbanRemix*," in <u>Leonardo</u>, MIT Press, 45:5, pp. 478-479.
- 15. *Freeman, J. (2011). "Artist Statement: Bringing Instrumental Musicians Into Interactive Music Systems Through Notation," in <u>Leonardo Music Journal</u>, MIT Press, 21, pp. 15-16.

- 16. *Freeman, J., DiSalvo, C., Nitsche, M., and **Garrett, S.** (2011). "Soundscape Composition and Field Recording as a Platform for Collaborative Creativity," in <u>Organised Sound</u>, Cambridge University Press, 16:3, pp. 272-281.
- 17. *Freeman, J. and **Van Troyer**, **A.** (2011). "Collaborative Textual Improvisation in a Laptop Ensemble," in <u>Computer Music Journal</u>, MIT Press, 35:2, pp. 8-21.
- 18. *Freeman, J. (2010). "Web-based Collaboration, Live Musical Performance and Open-Form Scores," in <u>International Journal of Performance Arts and Digital Media</u>, Intellect, 6:2, pp. 149-170.
- 19. *Freeman, J. and Colella, A. (2010). "Tools for Real-Time Notation," in <u>Contemporary Music Review</u>, Taylor and Francis, 29:1, pp. 101-113.
- 20. *Freeman, J. and **Godfrey, M.** (2010). "Creative collaboration between audiences and musicians in *Flock*," in <u>Digital Creativity</u>, Taylor and Francis, 21:2, pp. 85-99.
- 21. *Freeman, J. (2008). "Thoughts Around Terry Riley's *Chanting the Light of Foresight*," in Open Space, 10, pp. 143-149.
- 22. *Freeman, J. (2008). "Artist Statement: Collaborative Creation, Live Performance, and *Flock*," in Leonardo Music Journal, MIT Press, 18, pp. 44-45.
- 23. *Freeman, J. (2008). "Extreme Sight-reading, Mediated Expression, and Audience Participation: Real-time Music Notation in Live Performance," in <u>Computer Music Journal</u>, MIT Press, 32:3, pp. 25-41.
- 24. Freeman, J. (2008). "Glimmer: Creating New Connections," in Transdisciplinary Digital Art: Sound, Vision and the New Screen, <u>Communications in Computer and Information Science</u>, Springer, pp. 270-283.
- 25. *Freeman, J. (2008). "*Graph Theory*: Linking Online Musical Exploration to Concert Hall Performance," in <u>Leonardo</u>, MIT Press, 41:1, pp. 92-93.
- 26. Freeman, J. (2007). "Artist Statement: *Glimmer*: Lights, Orchestral Performance, and Audience Participation," in <u>Leonardo Electronic Almanac</u>, 15:11-12. Available at http://www.leonardo.info/lmj/lmj17supp freeman.html.
- 27. *Freeman, J. (2006). "Fast Generation of Audio Signatures to Describe iTunes Libraries," in Journal of New Music Research, Taylor and Francis, 35:1, pp. 51-61.
- 28. Freeman, J., Ramakrishnan, C., Varnik, K., Neuhaus, M., Burk, P., and Birchfield, D. (2005). "*Auracle*: A Voice-Controlled Networked Sound Instrument," in <u>Organised Sound</u>, Cambridge University Press, 10:3, pp. 221-231.

B2. Conference Presentation with Proceedings (Refereed) (student collaborators in bold)

- 1. *Clester, I. and Freeman, J. (2022). "Alternator: A General-Purpose Generative Music Player," in <u>Proceedings of the 2022 Web Audio Conference (WAC)</u>, Cannes, France. **Best Paper Award.**
- 2. *Moore, R., Delacoudray, C., Newton, S., Jackson, J., Alemdar, M., Garrett, S., Barbot, H., Freeman, J., Wilson, J., and Grossman, S. (2022). "Your Voice is Power: Integrating Computing, Music, Entrepreneurship, and Social Justice Learning," in Proceedings of the

- <u>American Society for Engineering Education 2022 Annual Conference</u> (ASEE), Minneapolis, Minnesota.
- 3. *Katuka, G., Webber, A., Wiggins, J., Boyer, K., Magerko, B., McKlin, T., and Freeman, J. (2022). "The Relationship between Co-Creative Dialogue and High School Learners' Satisfaction with their Collaborator in Computational Music Remixing," in Proceedings of the ACM Conference on Computer-Supported Cooperative Work (CSCW), Article No. 123, pp. 1-24.
- 4. *Smith, J. and Freeman, J. (2021). "Effects of Deep Neural Networks on the Perceived Creative Autonomy of a Generative Musical System," in <u>Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE)</u>, virtual conference.
- 5. *Truesdell, E., **Smith, J.**, Mathew, S., Katuka, G., Griffith, A., McKlin, T., Magerko, B., Freeman, J., and Boyer, K. (2021) "Supporting Computational Music Remixing with a Co-Creative Learning Companion," <u>Proceedings of the 2021 International Conference on Computational Creativity (ICCC)</u>, virtual conference. **Best long paper (student-led) award.**
- 6. *Bullard, C., Kansal, A., and Freeman, J. (2021) "Comparing Chat Methods for Remote Collaborative Live-Coding," in <u>Proceedings of the 2021 Audio Mostly Conference</u>, virtual conference.
- 7. *Clester, I., and Freeman, J. (2021). "Composing the Network With Streams," in <u>Proceedings of the 2021 Audio Mostly Conference</u>, virtual conference. **Best poster award.** (Posters at this conference accompanied by short papers in conference proceedings.)
- 8. *McCall, L., and Freeman, J. (2021). "A 3D Graphic Score Space and the Creative Techniques and Performance Practices that Emerge From it," in <u>Proceedings of the 2021 Audio Mostly</u> Conference, virtual conference.
- 9. *Griffith, A., Katuka, G., Wiggins, J., Boyer, K., Freeman, J., Magerko, B., and McKlin, T. (2021). "Discovering Co-creative Dialogue States During Collaborative Learning," in Proceedings of the International Conference on Artificial Intelligence in Education (AIED).
- 10. *Moore, R., Newton, S., Alemdar, M., Grossman, S., Freeman, J., **Smith, J.**, and Berry, T. (2021). "Engaging High School Students in Computer Science Through Music Remixing: An EarSketch-based Pilot Competition & Evaluation," in <u>Proceedings of the American Society for Engineering Education 2021 Annual Conference</u> (ASEE), virtual conference.
- 11. *Wu, Y. and Freeman, J. (2021). "Ripples: An Auditory Augmented Reality iOS Application for the Atlanta Botanical Garden," in <u>Proceedings of the 2021 Conference on New Interfaces in Musical Expression (NIME)</u>, virtual conference.
- 12. *McKlin, T., McCall, L., Lee, T., Magerko, B., Horn, M., and Freeman, J. (2021). "Leveraging Prior Computing and Music Experience for Situational Interest Formation," in <u>Proceedings of the ACM Special Interest Group on Computer Science Education (SIGCSE)</u>, virtual conference.
- 13. *Dasari, S. and Freeman, J. (2020). "Directed Evolution in Live Coding Music Performance," in <u>Proceedings of the 2020 Joint Conference on AI Music Creativity</u>, Stockholm, Sweden (held virtually).
- 14. *Horn, M., Banerjee, A., West, M., Pinkard, N., Pratt, A., Freeman, J., Magerko, B., and McKlin, T. (2020). "TunePad: Engaging Learners at the Intersection of Music and Code," in

- <u>Proceedings of the International Conference of the Learning Sciences</u>, Nashville, Tennessee (held virtually).
- 15. *Smith, J., Truesdell, E., Freeman, J., Magerko, B., Boyer, K., McKlin, T. (2020). "Modeling Music and Code Knowledge to Support a Co-Creative AI Agent for Education," in <u>Proceedings of the International Society for Music Information Retrieval (ISMIR)</u>, Montreal, Canada (held virtually).
- 16. *Smith, J., Jacob, M., Freeman, J., Magerko, B., and McKlin, T. (2019). "Combining Collaborative and Content Filtering in a Recommendation System for a Web-Based DAW," in Proceedings of the 2019 Web Audio Conference (WAC 2019), Trondheim, Norway.
- 17. *Bin, A., **Bui, C.**, **Genchel, B.**, **Sali, K.**, Magerko, B., and Freeman, J. (2019). "From the museum to the browser: Translating a music-driven exhibit from physical space to a web app," in <u>Proceedings of the 2019 Web Audio Conference (WAC 2019)</u>, Trondheim, Norway.
- 18. *McKlin, T., Lee, T., Wanzer, D., Magerko, B., Edwards, D., Grossman, S., Bryans, E., and Freeman, J. (2019). "Accounting for Pedagogical Content Knowledge in a Theory of Change Analysis," in ICER 2019), Toronto, Canada.
- 19. *Smith, J., Weeks, D., Jacob, M., Freeman, J., and Magerko, B. (2019). "Towards a Hybrid Recommendation System for a Sound Library," in <u>Joint Proceedings of the ACM IUI 2019</u>

 <u>Workshops: Intelligent Music Interfaces for Listening and Creation (MILC)</u>, Los Angeles, California.
- 20. *McKlin, T., Wanzer, D., Lee, T., Magerko, B., Edwards, D., Grossman, S., and Freeman, J. (2019). "Implementing EarSketch: Connecting Classroom Implementation to Student Outcomes," in https://example.com/Proceedings-of-the-ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2019), Minneapolis, Minnesota.
- 21. *Wanzer, D., McKlin, T., Edwards, D., Freeman, J., and Magerko, B. (2019). "Assessing the Attitudes Towards Computing Scale: A Survey Validation Study," in <u>Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2019)</u>, Minneapolis, Minnesota.
- 22. *Sarwate, A., Tsuchiya, T., and Freeman, J. (2018). "Collaborative Coding with Music: Two Case Studies with EarSketch," in <u>Proceedings of the 2018 Web Audio Conference</u>, Berlin, Germany.
- 23. *Sarwate, A., Bunch, C., Freeman, J., and Siva, S. (2018). "Grading at Scale in EarSketch," in Proceedings of ACM Learning at Scale (L@S 2018), London, England.
- 24. *Sarwate, A., Rose, R., Freeman, J., Armitage, J. (2018). "Performance Systems for Live-Coders and Non-Coders," in <u>Proceedings of the 2018 Conference on New Interfaces in Musical Expression (NIME 2018)</u>, Blacksburg, Virginia.
- 25. *Tsuchiya, T., and Freeman., J. (2018). "A Study of Exploratory Analysis in Melodic Sonification with Structural and Durational Time Scales," in <u>Proceedings of the International Conference on Auditory Display (ICAD 2018)</u>, Houghton, Michigan.
- 26. *Kerure, A., and Freeman, J. (2018). "Audio Source Localization as an Input to Virtual Reality Environments," in <u>Proceedings of the 2018 Audio Engineering Society Convention</u>, Milan, Italy.

- 27. *Siva, S., Im, T., McKlin, T., Freeman, J., and Magerko, B. (2018). "Using Music to Engage Students in an Introductory Undergraduate Programming Course for Non-Majors," in Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2018), Baltimore, Maryland.
- 28. *McKlin, T., Magerko, B., Lee, T., Wanzer, D., Edwards, D., and Freeman, J. (2018). "Authenticity and Personal Creativity: How EarSketch Affects Student Persistence," in Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2018), Baltimore, Maryland.
- 29. *Martinez Nieto, J. and Freeman, J. (2017). "Expression Marks for Programming Interactive Music," in <u>Proceedings of the 2017 International Conference on Technologies for Music Notation & Representation (TENOR 2017)</u>, A Coruña, Spain.
- 30. *Tsuchiya, T. and Freeman, J. (2017). "Spectral Parameter Encoding: Towards a Framework for Functional-Aesthetic Sonification," in <u>Proceedings of the 2017 International Conference on Auditory Display (ICAD 2017)</u>, University Park, Pennsylvania.
- 31. *Xambó, A., **Shah, P.**, Roma, G., and Freeman, J. (2017). "Turn-taking and Chatting in Collaborative Music Live Coding," in <u>Proceedings of Audio Mostly 2017</u>, London, England. **Nominee for Best Paper Award.**
- 32. *Roma, G., Xambó, A., and Freeman, J. (2017). "Handwaving: Gesture Recognition for Participatory Mobile Music," in Proceedings of Audio Mostly 2017, London, England.
- 33. *Roma, G., Xambó, A., and Freeman, J. (2017). "Loop-aware Audio Recording for the Web," in Proceedings of the 2017 Web Audio Conference, London, England.
- 34. *Im, T., Siva, S., Freeman, J., Magerko, B., **Hendler, G.**, Engelman, S., Miller, M., Villa, B., and McKlin, T. (2017). "Incorporating Music into an Introductory College Level Programming Course for Non-Majors," in <u>Proceedings of the 2017 IEEE Integrated STEM Education</u> Conference (ISEC 2017), Princeton, New Jersey. **Nominee for Best Paper Award.**
- 35. *Moore, R., Helms, M., and Freeman, J. (2017). "STEAM-Based Interventions in Computer Science: Understanding Feedback Loops in the Classroom," in <u>Proceedings of the 2017 American Society in Engineering Education Annual Conference and Expo (ASEE 2017)</u>, Columbus, Ohio.
- 36. *Engelman, S., Magerko, B., McKlin, T., Miller, M., Edwards, D., and Freeman, J. (2017). "Creativity in Authentic STEAM Education with EarSketch," in <u>Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2017)</u>, Seattle, Washington. This paper was also selected for an additional presentation in the Educator's Forum at ACM SIGGRAPH 2017, Los Angeles, California.

- 37. *Xambó, A., Drozda, B., **Weisling, A.**, Magerko, B., **Huet, M.**, Gasque, T., and Freeman, J. (2017). "Experience and Ownership with a Tangible Computational Music Installation for Informal Learning," in <u>Proceedings of ACM International Conference on Tangible, Embedded, and Emodied Interactions (TEI 2017), Yokohama, Japan.</u>
- 38. *Tsuchiya, T., Xambó, A., and Freeman, J. (2016). "Adapting DAW-Driven Musical Language to Live Coding: A Case Study in EarSketch," in <u>Proceedings of the 2016</u> International Conference on Live Coding (ICLC 2016), Hamilton, Canada.
- 39. *Tsuchiya, T., and Freeman, J. (2016). "Encoding Data into Sound and Music: A Live-Coding Approach," in Proceedings of the 2016 International Conference on Live Coding (ICLC 2016), Hamilton, Canada.
- 40. *Xambó, A., Lerch, A., and Freeman, J. (2016). "Learning to Code Through MIR," in <u>Proceedings of the 2016 International Society for Music Information Retrieval Conference</u> (ISMIR 2016), New York, New York.
- 41. *Im, T., Freeman, J., Magerko, B., and Siva, S. (2016). "Using Music to Enhance Learning Outcomes for Non-Majors in an Introductory Programming Course," in <u>Proceedings of Envisioning the Future of Undergraduate STEM Education (EnFUSE 2016)</u>, Washington, DC.
- 42. *Freeman, J., Magerko, B., Edwards, D., Miller, M., Moore, R., and Xambó, A. (2016). "Using EarSketch to Broaden Participation in Computing and Music," in <u>Proceedings of Sound and Music Computing (SMC 2016)</u>, Hamburg, Germany.
- 43. *Moore, R., Edwards, D., Freeman, J., Magerko, B., McKlin, T., and Xambó, A. (2016) "EarSketch: An Authentic, STEAM-based Approach to Computing Education," in <u>Proceedings of the 2016 American Society for Engineering Education Annual Conference & Expo</u>, New Orleans, Louisiana.
- 44. *Helms, M., Moore, R., Edwards, D., and Freeman, J. (2016). "STEAM-Based Interventions: Why Student Engagement is Only Part of the Story," in (RESPECT 2016), Atlanta, Georgia.
- 45. *Xambó, A., Lerch, A., Freeman, J. (2016). "Learning to Code Through MIR," in <u>Proceedings of the 17th International Society for Music Information Retrieval Conference (ISMIR 2016)</u>, New York, New York.
- 46. *Xambó, A., Freeman, J., Magerko, B., and **Shah, P**. (2016). "Challenges and New Directions for Collaborative Live Coding in the Classroom," in <u>Proceedings of the 2016 International</u> Conference on Live Interfaces (ICLI 2016), Sussex, England.
- 47. *Mahadevan, A., Freeman, J., and Magerko, B. (2016). "An interactive, graphical coding environment for EarSketch online using Blockly and Web Audio API," in <u>Proceedings of the 2016 Web Audio Conference</u>, Atlanta, Georgia.
- 48. *Martinez, J. and Freeman, J. (2016). "A JavaScript Pitch Shifting Library for EarSketch with Asm.js," in <u>Proceedings of the 2016 Web Audio Conference</u>, Atlanta, Georgia.
- 49. *Tsuchiya, T., Freeman, J., and Lerner, L. (2016). "Data-Driven Live Coding with DataToMusic API," in Proceedings of the 2016 Web Audio Conference, Atlanta, Georgia.
- 50. *Winters, M., Tsuchiya, T., Lerner, L., and Freeman, J. (2016). "Multi-Modal Web-Based

- Dashboards for Geo-Located Real-Time Monitoring," in <u>Proceedings of the 2016 Web Audio Conference</u>, Atlanta, Georgia.
- 51. *Tsuchiya, T., Freeman, J., and Lerner, L. (2015). "Data-to-Music API: Real-time Data-Agnostic Sonification with Musical Structure Models," in <u>Proceedings of the International Conference on Auditory Display</u>, Graz, Austria.
- 52. *Mahadevan, A., Freeman, J., Magerko, B., Martinez, J. (2015). "EarSketch: Teaching Computational Music Remixing in an Online Web Audio Based Learning Environment," in Proceedings of the Web Audio Conference (WAC), Paris, France.
- 53. *Freeman, J., Magerko, B., McKlin, T., Reilly, M., **Permar, J., Summers, C., Fruchter, E.** (2014). "Engaging Underrepresented Groups in High School Introductory Computing through Computational Remixing with *EarSketch*," in <u>Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education</u>, Atlanta, Georgia.
- 54. *Lee, S., and Freeman, J. (2013). "echobo: A Mobile Music Instrument Designed for Audience to Play," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2013), Seoul, Korea.
- 55. *Magerko, B., Freeman, J., McKlin, T., McCoid, S., Jenkins, T., and Livingston, E. (2013). "Tackling Engagement in Computing with Computational Music Remixing," in <u>Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education</u>, Denver, Colorado.
- 56. *Bretan, M., Weinberg, W., and Freeman, J. (2012). "Sonification for the Art Installation *Drawn Together*," in <u>Proceedings of the International Conference on Auditory Display</u>, Atlanta, Georgia.
- 57. *Subramanian, S., Freeman, J., and McCoid, S. (2012). "LOLbot: Machine Musicianship in Laptop Ensembles," in <u>Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012)</u>, Ann Arbor, Michigan.
- 58. *Lee, S., Srinivasamurthy, A., Tronel, G., Shen, W., Freeman, J. (2012). "Tok!: A Collaborative Acoustic Instrument using Mobile Phones," in <u>Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012)</u>, Ann Arbor, Michigan.
- 59. *Lee, S., Freeman, J., and Colella, A. (2012). "Real-Time Music Notation, Collaborative Improvisation, and Laptop Ensembles," in <u>Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012)</u>, Ann Arbor, Michigan.
- 60. *Weitzner, N., Freeman, J., Garrett, S., and Chen, Y. (2012). "massMobile an Audience Participation Framework," in <u>Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012)</u>, Ann Arbor, Michigan.
- 61. *Lee, S., Freeman, J., Colella, A., Yao, S., and Van Troyer, A. (2012). "Evaluating Collaborative Laptop Improvisation With *LOLC*," in <u>Proceedings of the Symposium on Laptop Ensembles and Orchestras</u> (SLEO 2012), Baton Rouge, Louisiana.
- 62. *Lee, S., Freeman, J., Colella, A., Yao, S., and Van Troyer, A. (2011). "Collaborative Improvisation in a Laptop Ensemble with *LOLC*," in <u>Proceedings of the 8th ACM Creativity</u> and Cognition Conference (CC 2011), Atlanta, Georgia.
- 63. *Freeman, J., Lee, S., Yao, S., and Albin, A. (2011). "LOLC for Laptop Music Ensemble (artist statement)," in Proceedings of the 8th ACM Creativity and Cognition Conference (CC

- 2011), Atlanta, Georgia.
- 64. *DiSalvo, C., Freeman, J., and Nitsche, M. (2011). "Participatory Art as Inner City Workshop: the *UrbanRemix* Sound Project," in <u>Proceedings of the Inter-Society for the Electronic Arts</u> (ISEA 2011), Istanbul, Turkey.
- 65. *Freeman, J., and **Godfrey, M.** (2008). "Technology, Real-time Notation, and Audience Participation in *Flock*," in <u>Proceedings of the International Computer Music Conference (ICMC 2008)</u>, Belfast, United Kingdom.
- 66. *Freeman, J. (2007). "*Graph Theory*: Linking Online Musical Creativity to Concert Hall Performance," in <u>Proceedings of the 6th ACM Creativity and Cognition Conference (CC 2007)</u>, Washington, DC, pp. 251-252.
- 67. *Freeman, J. (2007). "*Graph Theory*: Interfacing Audiences Into the Composition Process," in <u>Proceedings of the New Interfaces for Music Expression Conference (NIME 2007)</u>, New York, New York, pp. 260-263.
- 68. *Freeman, J. (2007). "*Graph Theory* and the Virtual Composer Residency Project," in Proceedings of the Spark Festival of Electronic Music and Art, Minneapolis, Minnesota, pp. 83-84.
- 69. *Freeman, J. (2006). "Summarizing Musical Preferences as Audio Signatures," in <u>Proceedings of the International Computer Music Conference (ICMC 2006)</u>, New Orleans, Louisiana, pp. 298-301.
- 70. *Weinberg, G., Freeman, J., Chordia, P., Clark, F., Moore, C., **Driscoll, S.**, and **Thatcher, T.** (2006). "Georgia Tech Music Technology Group Studio Report," in <u>Proceedings of the International Computer Music Conference (ICMC 2006)</u>, New Orleans, Louisiana, pp. 413-416.
- 71. *Thatcher, T., Jimison, D., Goetzinger, J., Freeman, J., and Weinberg, G. (2006). "Mobile Networked Music Demonstration: *Sequencer404*," in <u>Proceedings of the International Computer Music Conference (ICMC 2006)</u>, New Orleans, Louisiana, p. 544.
- 72. Freeman, J. (2006). "Glimmer: Creating New Connections," in <u>Proceedings of Digital Art</u> Weeks (DAW 2006), Zurich, Switzerland.
- 73. Freeman, J., Ramakrishnan, C., Varnik, K., Neuhaus, M., Burk, P., and Birchfield, D. (2005). "The Architecture of *Auracle*: A Voice-Controlled Networked Sound Instrument," in Proceedings of the International Computer Music Conference (ICMC 2005), Barcelona, Spain, pp. 608-611.
- 74. Freeman, J. (2005). "Large Audience Participation, Technology, and Orchestral Performance," in <u>Proceedings of the International Computer Music Conference (ICMC 2005)</u>, Barcelona, Spain, pp. 757-760.
- 75. Freeman, J., Ramakrishnan, C., Varnik, K., Neuhaus, M., Burk, P., and Birchfield, D. (2004). "Adaptive High-Level Classification of Vocal Gestures Within a Networked Sound Instrument," in <u>Proceedings of the International Computer Music Conference (ICMC 2004)</u>, Miami, Florida, pp. 668-671.
- 76. Freeman, J. (2004). "N.A.G. (Networked Auralization for Gnutella)," in Proceedings of ACM

- Multimedia, New York, New York, pp. 180-181.
- 77. Varnik, K., Freeman, J., Ramakrishnan, C., Burk, P., Neuhaus, M., and Birchfield, D. (2004). "Tools Used While Developing *Auracle*: A Voice-Controlled Networked Instrument," in <u>Proceedings of ACM Multimedia</u>, New York, New York, pp. 528-531.
- 78. Ramakrishnan, C., Freeman, J., Varnik, K., Birchfield, D., Burk, P., and Neuhaus, M. (2004). "The Architecture of *Auracle*: A Real-Time, Distributed, Collaborative Instrument," in 2004), Hammamatsu, Japan, pp. 100-103.
- 79. Freeman, J. (2003). "*MetaMix*: A Symbiosis of Familiar Content with Generative Form," in Proceedings of the 6th International Conference on Generative Art, Milan, Italy, pp. 87-91.

B3. Other Refereed Material (student collaborators in bold)

- *Delacoudray, C., Newton, S., Alemdar, M., Grossman, S., Garrett, S., Freeman, J., Wilson, J., Barbot, H., and Moore, R. (2021). "Integrating Computing, Music, Entrepreneurship, and Social Justice Learning," at <u>Annual Conference on Research in Equity and Sustained</u> <u>Participation in Engineering, Computing, and Technology (RESPECT)</u>, virtual conference. Poster presentation.
- *McKlin, T., Lee, T., Wanzer, D., Magerko, B., Edwards, D., Grossman, S., Bryans, E., and Freeman, J. (2019). "Exploring the Correlation Between Teacher Pedagogical Content Knowledge and Content Knowledge in Computer Science Classrooms," in <u>Proceedings of the</u> 2019 ACM Conference on <u>Innovation and Technology in Computer Science Education</u> (<u>ITICSE 2019</u>), Aberdeen, Scotland. Extended abstract for poster presentation.
- 3. *Freeman, J. (2019). "EarSketch: Teaching Music and Computer Science Together," in National Association of Music Merchants (NAMM) / College Music Society GenNext, Anaheim, California. Peer-reviewed demonstration / lecture at largest music industry trade show in the world.
- 4. *Freeman, J., Usselman, M., Edwards, D., Alemdar, M., Dorsey, C., and Finzer, B. (2018). "From Pilots to Products: Sustained Dissemination of Curriculum, Software, and Hardware at Scale," at 2018 National Science Foundation Discovery Research K-12 PI Meeting. Refereed panel discussion.
- *Xambó, A., Roma, G., Shah, P., Freeman, J., and Magerko, B. (2017). "Computational Challenges of Co-Creation in Collaborative Music Live Coding: An Outline," in <u>2017 Co-Creation Workshop at the International Conference on Computational Creativity (ICCC 2017)</u>, Atlanta, Georgia. Refereed position paper for workshop.
- 6. *Freeman, J., Edwards, D., Magerko, B., and **Ikkache, L.** (2017). "*EarSketch*: A Web Application to Teach Computer Science Through Music," at <u>ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2017)</u>, Seattle, Washington. Refereed demonstration, published abstract.
- 7. *Freeman, J., Magerko, B., Edwards, D., Moore, R., McKlin, T., and Xambó, A. (2015). "EarSketch: a STEAM approach to broadening participation in Computer Science Principles," at IEEE Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2015), Charlotte, North Carolina. Refereed extended abstract, lightning talk, and poster presentation.

- 8. *Tsuchiya, T., Freeman, J., and Lerner, L. (2015). "DataToMusic API: Data-Agnostic Aesthetic Sonification Framework," at Sounds, Images and Data, New York, New York. Refereed abstract published and presented at conference.
- 9. *Freeman, J., Magerko, B., and **Verdin, R.** (2015). "*EarSketch*: A Web-based Environment for Teaching Introductory Computer Science," at <u>ACM SIGCSE Technical Symposium on Computer Science Education</u>, Kansas City, Missouri. Refereed demonstration, published abstract.
- 10. *Freeman, J., Magerko, B., Edwards, D., and **Verdin, R.** (2015). "Computer Science Principles With *EarSketch*," at <u>ACM SIGCSE Technical Symposium on Computer Science Education</u>, Kansas City, Missouri. Refereed workshop, published abstract.
- 11. *Michaud, C., Freeman, J., and Magerko, B. (2014). "Creating Music with Python and *EarSketch*," at <u>International Society for Technology in Education (ISTE 2014)</u>, Atlanta, Georgia. Refereed poster, no conference proceedings.
- 12. *Magerko, B., Freeman, J., Reilly, M., and Michaud, C. (2014). "Computational Music Remixing with *EarSketch*," at <u>ACM SIGCSE Technical Symposium on Computer Science Education</u>, Atlanta, Georgia. Refereed workshop, published abstract.
- 13. *Clay, A., Freeman, J., Ozdemir, D., Magnusson, T., Hajdu, G., and McKenna, S. (2011). "Chasing Ghosts: Reactive Notation and Extreme Sight Reading," at <u>Inter-Society for the Electronic Arts</u> (ISEA 2011), Istanbul, Turkey. Panel organizer and presenter.
- 14. *Lindsay, A., Brossier, P., Casey, M., Collins, N., Freeman, J., and Schwarz, D. (2005). "Feature-Driven Audio Editing / Synthesis," at the <u>International Computer Music Conference</u> (ICMC 2005), Barcelona, Spain. Presenter at pre-conference workshop.
- 15. *Barbosa, A., Bencina, R., Freeman, J., and Gresham-Lancaster, S. (2005). "Networked Music," at the <u>International Computer Music Conference (ICMC 2005)</u>, Barcelona, Spain. Presenter at pre-conference workshop.
- **B4. Submitted Journal Articles** (student collaborators in bold)

C. Other Publications and Creative Products (student collaborators in bold)

Compositions († indicates refereed exhibitions and performances)

- 1. *Do the Buzzer Shake (2016), participatory performance. Collaboration with Anna Xambó and Gerard Roma.
 - i. Women in Music Technology Concert, Georgia Tech, Atlanta, Georgia (2016).
 - ii. †International Conference on Live Interfaces, Sussex, England (2016).
- 2. *Bending the Arc (2015), interactive multimedia performance. Lead interactive sound designer in collaboration with Jennifer Wen Ma, Guillermo Acevedo, Anna Xambó, Gerard Roma, and Jeryl Bright.
 - iii. Flux Night, Atlanta, Georgia (2015).
- 3. *EarSketch Live (2015), live coding performance.
 - i. Westlake High School (as part of EarSketch summer camps), Atlanta, Georgia (2016).
 - ii. Jason Freeman, 2016 Web Audio Conference, Atlanta, Georgia (2016).

- iii. Jason Freeman, High Voltage Concert, Louisiana State University, Baton Rouge, Louisiana (2016).
- iv. Jason Freeman, Ecos Urbanos Festival, Escuela Superior de Música, Mexico City, Mexico (2015).
- 4. *Shadows (2015), for solo piano, score follower, and real-time music notation. Written in collaboration with the MuTant team during an IRCAM Musical Research Residency.
 - i. Ninon Gloger / Radar Ensemble, Sound and Music Computing / STREAM Festival, Hamburg, Germany (2016). This performance was also broadcast on German television (TIDE TV at Kabel Deutschland, MartensTV, and willy.tel).
 - ii. Tim Whitehead / Sonic Generator, Museum of Contemporary Art of Georgia, Atlanta, Georgia (2016).
 - iii. Melvin Chen, Sprague Recital Hall, Yale University, New Haven, Connecticut (2015).
 - iv. Melvin Chen, Bard College Conservatory of Music, Annandale-On-Hudson, New York (2015).
- 5. *METZ (2015), for laptop orchestra. Written for the Music Tech Metz festival.
 - i. Georgia Tech Laptop Orchestra, Les Trinitaires, Metz, France (2015).
- 6. *Grow Old (2014), an ever-evolving streaming-only EP. Commissioned by New Radio and Performing Arts, Inc. (Turbulence.org) with funds from the National Endowment for the Arts. 6 out of 56 proposals (~10.7%) were commissioned.
 - i. National Taiwan Museum of Fine Arts (exhibition), Taichung, Taiwan (2015).
 - ii. Ecos Urbanos Festival, Escuela Superior de Música (performance), Mexico City, Mexico (2015).
 - iii. †Turbulence.org (online exhibition) (2014 present).
- 7. *Lullaby For Growing Old (2014), for solo toy piano.
 - i. Sonic Generator, Erikson Clock, Atlanta, Georgia (2014).
- 8. *Augmented Dance (2014), music for augmented reality locative mobile music application. Commissioned by Virtualle Switzerland.
 - i. Digital Art Weeks (exhibition and performance), Seoul, South Korea (2014).
 - ii. Virtualle Switzerland (exhibition), Basel, Switzerland (2014).
- 9. *MTRX (2013), for laptop orchestra. Commissioned by the Center for the Arts at Wesleyan University with funds from the Andrew W. Mellon Foundation.
 - i. Toneburst, Wesleyan University, Middletown, Connecticut (2017).
 - ii. Georgia Tech Laptop Orchestra, Goat Farm Arts Center, Atlanta, Georgia (2014).
 - iii. Toneburst, Wesleyan University, Middletown, Connecticut (2013).
- 10. *ETHL (2013), for string quartet and laptop quartet. With ETHEL.
 - i. ETHEL, Ferst Center for the Arts, Atlanta, Georgia (2013).
- 11. *Sketching (2013), for improvising musicians with audience participation. With Weibin Shen, Yan-Ling Chen, Nathan Weitzner, and Shaoduo Xie. Supported by funding from the National Science Foundation (CreativeIT, see Section E below).
 - i. Georgia Tech Jazz Ensemble, Under the Couch, Atlanta, Georgia (2013).
 - ii. Georgia Tech Jazz Ensemble, Ferst Center for the Arts, Atlanta, Georgia (2013).

- 12. *TeamWork (2013), for athletic band and audience participation. With Weibin Shen, Yan-Ling Chen, Nathan Weitzner, and Shaoduo Xie. Supported by funding from the National Science Foundation (CreativeIT, see Section E below).
 - i. Georgia Tech Pep Band, McCamish Pavillion, Atlanta, Georgia (2013, four performances).
- 13. *Saxophone Etudes (2012), for saxophone and audience participation. Supported by funding from the National Science Foundation (CreativeIT, see Section E below).
 - i. Georgia State Music Technology Group, The Goat Farm, Atlanta, Georgia (2012).
 - ii. Bent Frequency, Mass Collective, Atlanta, Georgia (2012).
- 14. *SGLC (2012), for laptop and instrumental ensemble. Supported by funding from the National Science Foundation (CreativeIT, see Section E below).
 - i. Sonic Generator, Woodruff Arts Center, Atlanta, Georgia (2012).
- 15. *Drawn Together (2012), interactive multimedia installation. With Gil Weinberg, **Mason Bretan**, **Jason Clark**, Tristan Al-Haddad, Racel Williams, and the Open Ended Group.
 - i. Stubbins Gallery (exhibition), Georgia Tech, Atlanta, Georgia (2012).
- 16. *LOLC (2010), for laptop orchestra. With Akito Van Troyer, Andrew Colella, Sang Won Lee, and Shannon Yao. Supported by funding from the National Science Foundation (CreativeIT, see Section E below).
 - i. Georgia Tech Laptop Duo, ACCelerate Festival, Smithsonian National Museum of American History, Washington, DC (2017).
 - ii. MICE, ZeroSpace Conference, University of Virginia, Charlottesville, Virginia (2013).
 - iii. †ACM Creativity and Cognition conference, High Museum of Art, Atlanta, Georgia (2011).
 - iv. Sonic Generator, Woodruff Arts Center, Atlanta, Georgia (2011).
 - v. †New Interfaces for Musical Expression conference (NIME 2011), Norwegian Museum of Science, Technology, and Medicine, Oslo, Norway (2011).
 - 33 out of 135 submissions (~24.4%) were presented at the conference.
 - vi. FutureFest, Georgia Tech, Atlanta, Georgia (2010).
 - vii. Listening Machines, Eyedrum, Atlanta, Georgia (2010).
 - viii. Princeton Laptop Orchestra, Princeton University, Princeton, New Jersey (2010).
- 17. *UrbanRemix (2010), locative media project. With Carl DiSalvo, Michael Nitsche, and several students.
 - i. Theater of Nations (part of group exhibition of Times Square art projects), Moscow, Russia (2016).
 - ii. Middletown Remixed (festival with over a dozen installations, performances, and art works created with UrbanRemix), Middletown, Connecticut (2013).
 - iii. VIVO arte.mov Festival (workshop), Belo Horizonte, Brazil (2012).
 - iv. Jade Simmons (performance), Ferst Center for the Arts, Atlanta, Georgia (2012).
 - v. †Times Square (performance and workshops), New York, New York (2011). Supported by the Times Square Arts Alliance. With **Travis Thatcher** and Damon Holzborn. The Times Square Arts Alliance selected **17 out of 371 submissions** (~**4.6%)** for presentation in Times Square.
 - vi. American Composers Orchestra Sonic Festival (performance), Roulette, New York, New York (2011). With exclusiveOr.
 - vii. Radio Milwaukee (online and on-air presentations), Milwaukee, Wisconsin (2011).
 - viii. †City Centered Festival (performance and workshop), San Francisco, California (2010). With Ken Ueno.

- ix. †Art on the Beltline (performance), Atlanta, Georgia (2010). With **Travis Thatcher**. **30** out of 170 proposals (~17.6%) were accepted.
- 18. *Just Tristan (2010), for piano duo.
 - i. Sven Thomas Kiebler and Elmar Schrammel (performance), TheaterHaus, Stuttgart, Germany, in cooperation with Akademie Schloss Solitude and Musik der Jahrhunderte (2010). This performance was also broadcast on SWR2 German Radio.
- 19. *Piano Etudes (2009), for solo piano (and the web). With **Akito Van Troyer** and pianist Jenny Lin. Supported by a Special Award from the Yvar Mikhashoff Trust (see Section III above).
 - i. Jenny Lin (performance), Jane Lang Recital Hall, Washington, DC (2014).
 - ii. Hubert Ho (performance), The Lilypad, Cambridge, Massachusetts (2013).
 - iii. Jenny Lin (radio broadcast), WABE Atlanta Music Scene (2013).
 - iv. Marta Brankovic (performance), Feta Foundation, Miami, Florida (2012).
 - v. Ipek Brooks (performance), Terminus Ensemble, Atlanta Central Library, Atlanta, Georgia (2012).
 - vi. Hubert Ho (performance), New Trends in American Music, Jiné Pohledy Festival, Prague, Czech Republic (2012).
 - vii. †Locrian Chamber Players (performance), Riverside Church, New York, New York (2012). 8 out of 139 submissions (~5.8%) were selected.
 - viii. †Basak Dilara Ozdemir (performance), Inter-Society for the Electronic Arts (ISEA 2011), Istanbul, Turkey (2011).
 - ix. Sonic Generator (performance), Woodruff Arts Center, Atlanta, Georgia (2011).
 - x. †Bora Yoon (performance), WienerTage KlavierMusik, Universität für Musik und Darstellende Kunst, Vienna, Austria (2011).
 - xi. Jenny Lin (performance), Portland Piano International, Portland, Oregon (2010).
 - xii. Kathleen Supové (performance), Making New Waves Festival, Trafó House of Contemporary Arts, Budapest, Hungary (2009).
 - xiii. †Electro Online (exhibition), Electrofringe Festival, Newcastle, Australia (2009).
 - xiv. Turbulence Spotlight (online exhibition) (2009).
 - xv. Lisa Leong (performance), Holy Cross, Worcester, Massachusetts (2009).
 - xvi. Kathleen Supové (performance), The Stone, New York, New York (2009).
 - xvii. Jenny Lin (performance), An Die Musik, Baltimore, Maryland (2009).
 - xviii. Jenny Lin (performance), Strathmore, Bethesda, Maryland (2009).
 - xix. Jenny Lin (performance), Spivey Hall, Atlanta, Georgia (2009).
 - xx. Verge Ensemble (performance), Corcoran Gallery of Art, Washington, DC (2009).
 - xxi. Jenny Lin (performance), Passaic Public Library, Passaic, New Jersey (2009).
 - xxii. Composers Collaborative (performance), Cornelia Street Café, New York, New York (2009).
 - xxiii. Jenny Lin and Chen Zimbalista (performance), Austrian Cultural Forum, New York, New York (2009).
- *Flou (2008), interactive web site and performance. With students in MUSI 6303.
 Commissioned by New Radio and Performing Arts, Inc. with funds from the New York State Music Fund.
 - i. Motion Graphics Festival (exhibition), Cambridge, Massachusetts and online (2009).
 - ii. Programmable Media II: Networked Music (performance), Pace University, New York, New York (2008).

- 21. *Flock (2007), full-evening work for saxophone quartet, dancers, audience participation, video, and electronic sound. With video designer Liubo Borissov and Mark Godfrey. Commissioned by the Adrienne Arsht Center for the Performing Arts, Miami, Florida. 5 out of over 60 proposals (~8.3%) were commissioned.
 - i. †Adrienne Arsht Center for the Performing Arts, Miami, Florida (2007). Five performances during Art | Basel | Miami Beach.
 - ii. 01SJ Festival, with the Rova Saxophone Quartet, San Jose, California (2008). Four performances. Following the festival, 01SJ published a catalog (ISBN 978-0-982145-80-7) documenting the event, including two pages on *Flock* (pp. 206-207).
- 22. *Covey (2007), interactive sound installation. With Mark Godfrey.
 - i. †Spark Festival (exhibition), Minneapolis, Minnesota (2008). **Approximately 100** works out of 760 submissions (~13.2%) were selected.
- 23. *Hello.World (2007), live coding audio and video performance.
 - i. Serial Underground (performance), Composers Collaborative, New York, New York (2007).
- 24. *Graph *Theory* (2006), for solo violin (and the web). With designer Patricia Reed and violinist Maja Cerar. Commissioned by New Radio and Performing Arts, Inc. (Turbulence.org) with funds from the Greenwall Foundation.
 - i. Lin He, High Voltage Concert, Louisiana State University, Baton Rouge, Louisiana (2016).
 - ii. Sonic Generator and Orchestre National de Lorraine (performance), L'Arsenal, Metz, France (2014).
 - iii. Sonic Generator and Orchestre National de Lorraine (performance), Ferst Center for the Arts, Atlanta, Georgia (2013).
 - iv. Kennesaw State University New Music Festival (performance), Bailey Center, Kennesaw, Georgia (2011).
 - v. †Flash and Thunder, Cinematique 2010 (online exhibition), Cologne, Germany (2010).
 - vi. †International Computer Music Conference (exhibition), McGill University, Montreal, Canada (2009). **105 out of 615 submissions** (~17%) were accepted.
 - vii. †International Conference and Exhibition on Computer Graphics and Interactive Technologies (ACM SIGGRAPH) (exhibition), Los Angeles, California (2008). **41 out of over 300 submissions (~13.7%) were accepted.** An ACM-published exhibition catalog (ISBN 978-1-60558-344-0) featured a full page on *Graph Theory* (p. 94).
 - viii. †Stuttgarter Filmwinter (exhibition), Stuttgart, Germany (2008).
 - ix. †Live Herring (exhibition), Jyväskylä Art Museum, Jyväskylä, Finland (2008).
 - x. Greylock Arts (exhibition), North Adams, Massachusetts, and online (2008).
 - xi. Breaking New Ground (performance and exhibition), Spruill Art Gallery, Atlanta, Georgia (2008).
 - xii. †Spark Festival (performance), Minneapolis, Minnesota (2007). **Approximately 80 out of 690 submissions (~11.6%) were accepted.**
 - xiii. †Paraflows Festival (exhibition), Vienna, Austria (2007).
 - xiv. †Spor Festival (exhibition), Aarhus, Denmark (2007). 4 out of 24 works in the exhibition (~16.7%) received special jury recognition.
 - xv. Serial Underground (performance), Composers Collaborative, New York (2007).
 - xvi. Neophonia (performance), Florence Kopleff Rectial Hall, Atlanta, Georgia (2007).
 - xvii. Sonic Generator (performance), Georgia Tech Alumni House, Atlanta, Georgia (2007).
 - xviii. D.I.Y. or Die, Upgrade International Festival (performance and exhibition), Oklahoma City, Oklahoma (2006).

- 25. *Eternal Gliss (2006), for violin, viola, and cello.
 - i. Terminus Ensemble, Florence Kopleff Rectial Hall, Atlanta, Georgia (2014).
 - ii. Terminus Ensemble, Florence Kopleff Rectial Hall, Atlanta, Georgia (2013).
- 26. *iTunes Signature Maker (2005), software art. Commissioned by Rhizome, a division of the New Museum of Contemporary Art in New York, with funding from the Jerome Foundation, the Greenwall Foundation, the Andy Warhol Foundation, and the New York City Department of Cultural Affairs. 11 out of over 100 proposals (~11%) were commissioned.
 - i. My Friends Electric (exhibition), Sonar Festival, Barcelona, Spain (2006).
 - ii. D.I.Y. or Die, Upgrade International Festival (exhibition), Oklahoma City, Oklahoma (2006).
 - iii. †New Museum of Contemporary Art (one night exhibition), New York, New York (2006).
 - iv. †Perform.Media (exhibition), Bloomington, Indiana (2006).
- 27. *What I Listen To (2005), for stereo playback.
 - i. †60x60 Order of Magnitude Mix (dance installation and performance), FoFa Gallery, Concordia University, Montreal, Canada (2010).
 - ii. †60x60 New York Minutes (performance), Adelphi University, New York, New York (2007).
 - iii. †60x60 New York Minutes (performance), William Patterson University, Wayne, New Jersey (2007).
 - iv. †60x60 New York Minutes (performance), Brooklyn College, New York, New York (2006).
 - v. †Soundlab (online exhibition), Cologne, Germany (2006).
- 28. *Glimmer* (2005), for chamber orchestra and audience participation. Commissioned by the American Composers Orchestra.
 - i. South Florida Youth Symphony (performance), Gusman Concert Hall, Miami, Florida (2010).
 - ii. MegaBeat Festival (performance), Hamabada Art Center, Jerusalem, Israel (2006).
 - iii. American Composers Orchestra (performance), Zankel Hall, Carnegie Hall, New York, New York (2005).
- 29. Prior Art (2004), for chamber ensemble.
 - i. Ensemble Surplus (performance), Theaterhaus, Stuttgart, Germany (2005).
 - ii. Speculum Musicae (performance), Miller Theater, New York, New York (2004).
- 30. *Auracle* (2004), networked sound instrument. With Max Neuhaus, Phil Burk, Sekhar Ramakrishnan, Kristjan Varnik, and David Birchfield.
 - i. Donnaueschinger Musiktage (exhibition), Donnaueschingen, Germany (2004).
 - ii. MegaBeat Festival (exhibition), Hamabada Art Center, Jerusalem, Israel (2006).
- 31. *N.A.G.* (2003), software art. Commissioned by New Radio and Performing Arts, Inc. (Turbulence.org) with funds from the National Endowment for the Arts. **4 out of approximately 75 proposals** (~5.3%) were commissioned.
 - i. D.I.Y. or Die, Upgrade International Festival (exhibition), Oklahoma City, Oklahoma (2006).
 - ii. †Viper Festival (exhibition), Basel, Switzerland (2004).

- 32. Sonorescence (2003), for flute.
 - i. Terminus Ensemble (performance), Whitespace Gallery, Atlanta, Georgia (2018).
 - ii. Sonic Generator (performance), Woodruff Arts Center, Atlanta, Georgia (2011).
 - iii. New York Young Musicians' Forum (performance), New York, New York (2005).
 - iv. Jill Sokol (performance), Weill Recital Hall, Carnegie Hall, New York, New York (2004).
- 33. Leroy Anderson Went to Harvard (2003), for percussion quartet.
 - i. Georgia State University Percussion Ensemble (performance), Rialto Center for the Performing Arts, Atlanta, Georgia (2011).
 - ii. So Percussion, Casa Italiana, New York, New York (2003).
- 34. The Late Hour (2002), for baritone, viola, cello, and percussion.
 - i. Bargemusic, New York, New York (2004).
 - ii. †Royaumont Voix Nouvelles (performance) with Les Jeunes Solistes and the Nieuw Ensemble, Asnières sur Oise, France (2002).
- 35. MetaMix (2002), software art.
 - i. Art Meets Media: Adventures in Perception (exhibition), NTT Intercommunication Center, Tokyo, Japan (2005). An accompanying exhibition catalog (ISBN 4-7571-7027-0) included a paragraph on *MetaMix* by one of the curators (p. 142).
 - ii. Transcodex, Boston University Art Gallery (exhibition), Boston Cyberart Festival, Boston, Massachusetts (2003).
- 36. Telephone Etude #1: Shakespeare Cuisinart (2001)
 - i. Serial Underground (performance), Composers Collaborative, New York, New York (2005).
 - ii. World Turning Festival (performance), New York, New York (2003).
 - iii. Heavy Music for Light People (performance), Flea Theater, New York, New York (2001).
- 37. Darker (2001), for soprano and piano.
 - i. Merdokht Manavi (performance), WienerTage KlavierMusik, Universität für Musik und Darstellende Kunst, Vienna, Austria (2011).
 - ii. New York Young Musicians' Forum (performance), New York, New York (2004).
 - iii. Anti-Social Music Collective (performance), New York, New York (2001).
- 38. Resolutions (2001), for chamber ensemble.
 - i. University of Florida New Music Ensemble (performance), Gainesville, Florida (2001).
- 39. The Locust Tree In Flower (2000), interactive multimedia installation.
 - i. Heavy Music for Light People (exhibition), Flea Theater, New York, New York (2001).
 - ii. Masterpieces of 20th Century Electronic Music: A Multimedia Perspective (exhibition), Lincoln Center Festival, New York, New York (2000).
- 40. Pantoum (2000), for violin, viola, cello, clarinet, and trombone.
 - i. †Domaine Forget Festival (performance), with Le Nouvel Ensemble Moderne, La Malbaie, Canada (2001).
- 41. Sonata (2000), for solo piano.
 - i. †Society of Composers, Inc. National Conference (performance, second movement), Atlanta, Georgia (2008). **Approximately 75 works from over 600 submissions** (~12.5%) were selected.
 - ii. Bent Frequency (performance, fourth movement), Eyedrum, Atlanta, Georgia (2008).

- iii. Lisa Leong (performance, second movement), Spivey Hall, Atlanta, Georgia (2008).
- iv. †June In Buffalo Festival (performance, complete work), Buffalo, New York (2000).
- v. †Society of Composers, Inc. National Student Conference (performance, first movement), Ann Arbor, Michigan (2000).
- 42. *Convergence* (2000), for clarinet, cello, and piano.
 - i. Midis-Minimes Festival (performance), Ensemble Eddy Vanoosthuyse, Brussels, Belgium (2003).
- 43. Diffusions (1999), for orchestra.
 - i. †American Composers Orchestra Whitaker New Music Reading Sessions (public reading session), New York, New York (2000). 7 out of nearly 150 applicants (~4.7%) were selected.
 - ii. †Jacksonville Symphony Orchestra Fresh Ink Reading Sessions (public reading session), Jacksonville, Florida (2000).
- 44. Propagations (1998), for solo bass clarinet.
 - i. †Society of Composers, Inc. Regional Conference (performance), Miami, Florida (1999).
 - ii. †Society of Composers, Inc. National Student Conference (performance), Austin, Texas (1999).
- 45. Symmetries (1998), for concert band.
 - i. Georgia Tech Wind Ensemble (performance), Ferst Center for the Arts, Atlanta, Georgia (2010).
 - ii. Yale Concert Band (performance), Woolsey Hall, New Haven, Connecticut (1998).

Exhibitions

- 1. *Real Time Environmental Data Through Sight and Sound, <u>Atlanta Science Festival</u>, Decatur, Georgia (2015). With Lee Lerner and **Takahiko Tsuchiya**.
- 2. *Molecular Dynamics Sonification, <u>Atlanta Science Festival</u>, Atlanta, Georgia (2014). With Lee Lerner, **Takahiko Tsuchiya**, Steve Harvey, and Brian Cafferty.
- 3. *Mediation Station: an Unauthored Music Terminal (2006). With Rebecca Uchill. Curated kiosk of music and media art for exhibition at the SoFAGallery at Indiana University (Bloomington, Indiana) during the Perform.Media festival.

Invited Publications

- 1. *Freeman, J. (2022). "The History of Music and Computing," in <u>Introduction to Digital Music with Python</u>, eds. Horn, West, and Roberts. Focal Press.
- 2. *Freeman, J. (2022). "Live Coding Exposition," in <u>Live Coding: A User's Manual</u>, ed. Alan Blackwell, Emma Cocker, Geoff Cox, Alex McLean, and Thor Magnusson, MIT Press.
- 3. *Freeman, J., and Gavazza, G. (2021). "Composers in Dialogue," in The Art Section.
- 4. *Freeman, J. (2019). "Unwanted Music: A Pathway to Engaged, Inclusive Listening," in <u>Naxos</u> Musicology International, November 2019.
- 5. *Freeman, J. (2014). "Georgia Tech Center for Music Technology," in <u>The Grove Dictionary of Musical Instruments</u>, Oxford University Press.

- 6. *Freeman, J. (2010). "DIY Scores," in <u>Symphony: The Magazine of the League of American Orchestras</u>, September/October 2010, pp. 24-26.
- 7. *Freeman, J. (2010). "Compose Your Own, Part 2," in <u>Opinionator</u> on the <u>New York Times</u> web site. Available at http://opinionator.blogs.nytimes.com/2010/05/24/compose-your-own-part-2/.
- 8. *Freeman, J. (2010). "Compose Your Own," in <u>Opinionator</u> on the <u>New York Times</u> web site. Available at http://opinionator.blogs.nytimes.com/2010/04/22/compose-your-own/.
- 9. *Freeman, J. (2009). "Giving Your GWT Application a Voice," in <u>Google Web Toolkit Blog</u> (official Google developer blog). Available at http://googlewebtoolkit.blogspot.com/2009/03/giving-your-gwt-application-voice.html.
- 10. *Freeman, J. (2008). "What I Listen To," in <u>The Art Section</u>, 2:4. Available at http://www.theartsection.com.
- 11. *Freeman, J. (2006). "Composer, Performer, Listener," in J.P. Hiekel (ed.), <u>Komponieren in der Gegenwart: Texte der 42. Internationalen Ferienkurse für Neue Musik 2004</u>, pp. 125-130. Saarbrücken, Germany: Pfau Verlag.
- 12. Freeman, J. (2005). "Swooping the Orchestra," in <u>ACOAdvance</u>, 11. Available at http://www.americancomposers.org/freeman essay.htm.
- 13. Freeman, J. (2004). "On *Prior Art*," in S. Burow and S. Pantaleev (eds.), <u>Jahrbuch 7</u>, pp. 41-43. Stuttgart, Germany: Merz & Solitude.
- 14. Freeman, J. (2003). "*N.A.G. (Network Auralization for Gnutella)*: In Search of a New Way to Listen," in The HTV, 50, pp. 7-8.
- 15. Freeman, J. (2002). "Orchestra Tech National Conference (review)," in <u>Computer Music Journal</u>, MIT Press, 26:2, pp. 91-93.

Performances

- 1. *Music director of the <u>Georgia Tech Laptop Orchestra</u> (2017-present), including the following performances:
 - i. Joint concert with Percussion Ensemble, Ferst Center for the Arts, featuring music by Cardew, Ross Smith, and Allen (2017).
 - ii. Joint concert with GT Chorale, Couch Building, featuring premieres of music by ensemble members (2017).
 - iii. Concert celebrating the International Year of the Periodic Table of Elements, in cooperation with the College of Sciences, Klaus Center Atrium, featuring music by Cage, Brown, and a world premiere by MS music tech student Avneesh Sarwate (2019).
 - iv. Concert featuring premieres of music by ensemble members, West Village (2019).
 - v. Joint concert with Georgia Tech Symphony Orchestra, Ferst Center for the Arts (2020).
 - vi. Concert featuring premieres of music by ensemble members, Skyline Series (2021).
 - vii. Joint concert with Georgia Tech Symphonic and Concert Bands, Ferst Center for the Arts (2022).
 - viii. Joint concert with Georgia Tech Technology Ensemble, West Village (2022).
- 2. †*Laptop performer on <u>Transmusicking</u>, peer-reviewed performance at Audio Mostly 2017,

- London, England in collaboration with Women in Music Technology and the Female Laptop Orchestra (FLO).
- 3. *Coordinated Music Tech Metz festival, a three day festival in Metz, France in collaboration with Georgia Tech Lorraine, the Orchestre National de Lorraine, and Metz en Scènes, featuring students and faculty from the Georgia Tech School of Music, a musical instrument hackathon, and the winner of the Guthman Musical Instrument Competition (2015).
- 4. *Coordinated exhibition and performances of Musical Architecture at Georgia Tech's Ferst Center Amphitheater (2014).
- 5. *Coordinated performance by the Georgia Tech Laptop Orchestra at the Goat Farm Arts Center (2014).
- 6. *Coordinated performances by Sonic Generator:
 - i. Sonic Generator and gloATL premiere Daniel Wohl's Cycles at 54 Columns as part of the France-Atlanta festival (2016).
 - ii. Sonic Generator at the Museum of Contemporary Art of Georgia (2016).
 - iii. Sonic Generator and Ensemble Variances at the Ferst Center for the Performing Arts as part of the France-Atlanta festival (2015).
 - iv. Sonic Generator at the Museum of Contemporary Art featuring music by Philip Glass and Nathan Davis (2015).
 - v. Sonic Generator at the Atlanta Science Festival featuring music generated by real-time environmental sensor data (2015).
 - vi. Sonic Generator at Terminal West featuring music by Daniel Wohl and Christopher Cerrone (2015).
 - vii. Sonic Generator at Erikson Clock featuring the music of John Zorn (2014).
 - viii. Sonic Generator at L'Arsenal in Metz, France, with the Orchestre National de Lorraine (2014).
 - ix. Sonic Generator at the Mammal Gallery as part of WREKtacular 2014 (2014).
 - x. Sonic Generator at the Slingshot Festival in Athens, Georgia, featuring the music of guest composer Tristan Perich (2014).
 - xi. Sonic Generator with the Orchestre National de Lorraine at the Ferst Center for the Arts for France-Atlanta (2013).
 - xii. Sonic Generator at the Woodruff Arts Center's Piazza, featuring Martin Matalon's *Metropolis* screened on the wall of the High Museum of Art (2013).
 - xiii. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring music by Mario Diaz de Leon (2013).
 - xiv. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring music by Tristan Perich (2012).
 - xv. Sonic Generator at the International Conference on Auditory Display, featuring music by guest composer Jonathan Berger (2012).
 - xvi. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring music by Atlanta composers (2012).
 - xvii. Sonic Generator at Atlanta Symphony Hall, featuring Kaija Saariaho's ballet *Maá*, in collaboration with gloATL and Robert Spano (2011).
 - xviii. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring more music from the Georgia Tech Center for Music Technology (2011).
 - xix. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring music from the Georgia Tech Center for Music Technology (2011).
 - xx. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring guest composer Philippe Leroux and Music of IRCAM (2010).
 - xxi. Sonic Generator at the Reinsch-Pierce Family Auditorium, for Georgia Tech's Homecoming Weekend (2010).

- xxii. Sonic Generator at the High Museum of Art's Hill Auditorium (2010).
- xxiii. Sonic Generator at the Woodruff Arts Center's Rich Theatre, featuring guest composer Michael Gordon (2010).
- xxiv. Sonic Generator at the Georgia Tech Alumni House (2009).
- xxv. Sonic Generator at the Woodruff Arts Center's Rich Theatre, debut performance at Woodruff Arts Center (2009).
- xxvi. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Marc Mellits (2009).
- xxvii. Sonic Generator at the College Music Society National Conference, featuring music of guest composer Charles Mason (2008).
- xxviii. Sonic Generator at the Society of Composers, Inc. National Conference, featuring music of guest composer Charles Mason (2008).
- xxix. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Tristan Perich (2008).
- xxx. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Nick Demos (2008).
- xxxi. Sonic Generator at the Atlanta Symphony Orchestra's Appassionata dinner, Atlanta, Georgia (2008).
- xxxii. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Chris Arrell (2008).
- xxxiii. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Steve Everett (2007).
- xxxiv. Sonic Generator at the Georgia Tech Alumni House, featuring guest composer Joshua Fried (2007).
- xxxv. Sonic Generator at the Georgia Tech Alumni House (2007).
- xxxvi. Sonic Generator at the Georgia Tech Alumni House, inaugural performance (2006).

Residencies

- 1. †*Musical Research Laureate, <u>IRCAM</u>, Paris, France (2014 2015), for collaboration with Arshia Cont and MuTant team on open-form score following for *Shadows*. 4 out of over 50 applicants (~8%) were awarded.
- 2. *Composer in Residence, <u>Wesleyan University Center for the Arts</u>, Middletown, Connecticut (2012 2013), for *Middletown Remix*.
- 3. †*Composer in Residence, South Florida Youth Symphony, Miami, Florida, for *Glimmer* (2010). Funded by Meet the Composer's Music Alive program with support from the Mellon Foundation, the Copland Fund for New Music, and the ASCAP Foundation. **9 residencies were** funded from an original group of 130 nominated composers (~6.9%).
- 4. *Artist in Residence, <u>Interdisciplinary Sound Arts Workshop</u>, Miami, Florida (2007 2008), for *Sound Microscope*.
- 5. †Fellowship in Music / Sound, <u>Akademie Schloss Solitude</u>, Stuttgart, Germany (2003 2006), for collaboration with Max Neuhaus to create *Auracle*. 7 out of approximately 220 applicants (~3.2%) received fellowships.
- 6. †Composer in Residence, Collegiate School, Richmond, Virginia (2001), for *The Jungle Book*.

Software

1. *EarSketch (2022). Web-based learning environment that teaches computer science and music together to broaden participation in computing. With Brian Magerko and numerous students.

- Over one million unique users in 50 states and 100+ countries have coded with the environment.
- 2. *DataToMusic API (2017). JavaScript API for data-driven generative composition in web browsers, with support for big data, live coding, web audio API, and real time music notation. With **Takahiko Tsuchiya**.
- 3. *massMobile (2014). Smartphone, server, and Max/MSP software framework for live audience participation via smartphones. With Stephen Garrett, Nathan Weitzner, Yan-Ling Chen, Weiben Shen, Shaoduo Xie, and Takahiko Tsuchiya.
- 4. *Gorilla Sonification (2013). Interactive sonification software to track the movement of gorillas in Africa. With **Takahiko Tsuchiya**, Bruce Walker, and Tony Giarrusso for the Dian Fossey Foundation.
- 5. *Real-time Orchestra Visualization (2013). Software generates real-time video projection to help students learn the sounds of the instruments of the orchestra. With Cameron Summers and Elisabeth Deeb. Used by the Atlanta Symphony Orchestra at childrens' concerts reaching over 2,000 K-12 students in the Atlanta Metro area.
- 6. *LOLC (2012). Networked, textual collaboration environment for laptop ensemble improvisation. With Akito Van Troyer, Andrew Colella, Sang Won Lee, and Shannon Yao.
- 7. *Nular (2009). Web-based interactive music environment in which users search for sounds and algorithmically manipulate them through a novel granular synthesis interface. With **Akito Van Trover**.
- 8. *Sound Microscope (2008). Web-based educational software to teach students about frequency analysis and the structure of sound. With **Mark Godfrey**.
- 9. *Flock Vision Toolkit (2008). Software objects for the Max/MSP/Jitter development environment to perform camera lens correction, skew correction, multi-camera image stitching, and particle-filter-based tracking for computer vision applications. With Mark Godfrey.
- 10. *Disc-o*, in JPMorganChase Kids Digital Movement and Sound Project (2002). Networked software program to encourage students to explore physical properties (e.g. magnetism, gravity, and motion) and to map them to aural and visual experiences. With Douglas Repetto.

D. Presentations

Keynote and Invited

- 1. *Freeman, J. (2022). <u>Ithaca College</u>, Ithaca, New York, guest seminar on my compositional work (virtual presentation).
- 2. *Freeman, J. (2022). "Musical Instrument Design," at Northwestern University, Chicago Illinois, guest seminar lecture (virtual presentation).
- 3. *Giavitto, J., Freeman, J., Cont, A., Groover, K., Hemery, E., Mamou-Mani, A., and Scandalis, P. (2021). "Casual Creators (panel co-chair)," at <u>France Atlanta Festival</u>, virtual event copresented by IRCAM and the French Consulate in Atlanta.
- 4. *Freeman, J. (2018). "Music Technology at Georgia Tech," at <u>Lane Tech</u>, Chicago, Illinois.

- 5. *Weinberg, G., Freeman, J., Lerch, A., Winters, M., and Tsuchiya, T. (2017). "Research at Georgia Tech Center for Music Technology (panel)," at MoogFest, Durham, North Carolina.
- 6. *Freeman, J. (2016). "Music, Computing, and Participation," at School of Music and Music Technology, <u>University of Huddersfield</u>, Huddersfield, United Kingdom.
- 7. *Freeman, J. (2016). "Music, Computing, and Participation," Whitehead Lecture at <u>Goldsmiths University of London</u>, London, United Kingdom.
- 8. *Freeman, J. (2016). "Music, Computing, and Participation (keynote)," at Composition as an Interdisciplinary Practice symposium, <u>University of Surrey</u>, Guildford, United Kingdom.
- 9. *Freeman, J. (2016). "Composer, Peformer, Listener," at composition colloquium, <u>New York University</u>, New York, New York.
- 10. *Freeman, J. (2016). "Blockchain Mixtape (panelist)," at A3C Hip Hop Festival, Atlanta, Georgia.
- 11. *Freeman, J. (2016). "Dynamic Music Notation, Interactivity, and Open-Form Scores," at composition colloquium, <u>Louisiana State University</u>, Baton Rouge, Louisiana.
- 12. *Freeman, J. (2016). "Music, Computing, and Participation," at composition seminar, <u>Emory University</u>, Atlanta, Georgia.
- 13. *Freeman, J. (2016). "Music, Computing, and Participation," at ATLAS, <u>University of Colorado at Boulder</u>, Boulder, Colorado.
- 14. *Freeman, J. (2015). "EarSketch: an authentic STEAM approach to broadening participation in computer science through music," at International Conference on Innovative Tools and Methods to Teach Music and Signal Processing, Jean Monnet University, Saint-Etienne, France. Invited guest speaker.
- 15. *Freeman, J. (2015). "Creativity, Collaboration, Music, and Computing in Online Learning at Scale," at Greater Atlanta Chapter of the <u>Association for Talent Development Conference</u>, Atlanta, Georgia. Keynote speaker.
- 16. *Freeman, J. (2015). "Themes and Mechanisms for Musical Engagement," at Composers Colloquium, <u>University of Missouri-Kansas City</u>, Kansas City, Missouri.
- 17. *Freeman, J. (2013) at Computing and the Arts Lecture Series, <u>Yale University</u>, New Haven, Connecticut.
- 18. *Freeman, J. (2013). "EarSketch," at PopTech, Camden, Maine. Demonstration.
- 19. *Callahan, M., Freeman, J., and Beck, K. (2013). "Translocal Future," at <u>Athens Slingshot</u>, Athens, Georgia. Panelist.
- 20. *Freeman, J. (2012). "Composer, Performer, Listener," at Music Department, <u>Wesleyan</u> University, Middletown, Connecticut.
- 21. *Freeman, J. (2012). "Composition, Imagination, and Collaboration," at <u>TedX Georgia Tech</u>, Atlanta, Georgia.
- 22. *Stewart, M., Kimbell, R., Freeman, J., Taylor, B., Veon, R., and Mercier, M. (2012).

- "Creativity, Education, and Assessment," at <u>Igniting the Creative Core: Arts Teaching, Learning, and Assessment in the Age of Accountability: the ArtsAPS 2012 Professional Learning Seminar, Atlanta, Georgia. Panelist.</u>
- 23. *Freeman, J. (2011). "Composer, Performer, Listener," at <u>WienerTage KlavierMusik</u>, Universität für Musik und Darstellende Kunst, Vienna, Austria.
- 24. *Freeman, J. (2011). "Composer, Performer, Listener," at Museum of Design, Atlanta, Georgia.
- 25. *Freeman, J. (2010). "Composer, Performer, Listener," at Frost School of Music, <u>University of Miami</u>, Florida.
- 26. *Freeman, J. (2009). "Composer, Performer, Listener," at Arts, Media, and Engineering Program, <u>Arizona State University</u>, Tempe, Arizona.
- 27. *Freeman, J. (2009). "Web-based Collaboration, Live Musical Performance, and Open-Form Scores," at Music in the Global Village, Budapest, Hungary.
- 28. *Munster, A., Freeman, J., and Lichty, P. (2009). "Networked Authorship, Architecture, Openness, and Writing," at empyre. Guest in moderated online discussion.
- 29. *Freeman, J. (2009). "Distributed Music Group," at Google, Atlanta, Georgia.
- 30. *Werman, M., Anderson, L., Bragin, B., Freeman, J., Joseph, M., Krakauer, D., Lawson, D., Farris, R., and Wesley, F. (2009). "Nurturing Creativity and Risk-Taking in Our Changing Cultural Climate," at <u>Association of Performing Arts Presenters National Conference (APAP 2009)</u>, New York, New York. Panelist.
- 31. *Freeman, J. (2008). "Sound Microscope," at Living[room]Music, Light Box, organized by the Interdisciplinary Sound Arts Workshop (iSAW), Miami, Florida.
- 32. *Freeman, J., Trueman, D., Traub, P., Layton, Z., and Kato, S. (2008). Round-table discussion, at Programmable Media II: Networked Music, Pace University, New York, New York. Panelist.
- 33. *Freeman, J. (2008). "Composer, Performer, Listener," at Ideas for Creative Exploration (ICE), University of Georgia, Athens, Georgia.
- 34. *Freeman, J. (2007). "Interactivity in *Flock*," at Music Department, <u>Florida International</u> University, Miami, Florida.
- 35. *Freeman, J. (2007). "Interactivity in *Flock*," at Adrienne Arsht Center for the Performing Arts, organized by the Interdisciplinary Sound Arts Workshop (iSAW), Miami, Florida.
- 36. *Freeman, J. (2006). "Graph *Theory*," at <u>Dorkbot Art and Technology Forum</u>, Washington, DC.
- 37. *Cope, D., Cohen, H., Freeman, J., and Legrady, G. (2006). "Algorithmic Methods and Models in the Arts," at Digital Arts and New Media Festival, <u>University of California</u>, Santa Cruz, California. Panelist.
- 38. *Freeman, J., and Burk, P. (2006). "The Design of *Auracle*," at Center for Computer Research in Music and Acoustics (CCRMA), <u>Stanford University</u>, Palo Alto, California.

- 39. *Freeman, J. (2006). "Algorithmic Composition, Creative Collaboration," at Center for New Music and Audio Technologies (CNMAT), <u>University of California</u>, Berkeley, California.
- 40. *Freeman, J. (2006). "Participation, Technology, and Musical Performance," at <u>Upgrade International Festival</u>, Oklahoma City, Oklahoma.
- 41. *Freeman, J. (2006). "Composer, Performer, Listener," at Media Computing Group, <u>Rheinisch-Westfälische Technische Hochschule (RWTH)</u>, Aachen, Germany.
- 42. Freeman, J. (2005). "On Some Recent Compositions," at Music Department, <u>University of Virginia</u>, Charlottesville, Virginia.
- 43. Freeman, J. (2004). "Composer, Performer, Listener," at <u>Darmstadt Internationale Ferienkurse für Neue Musik</u>, Internationales Musikinstitut Darmstadt (IMD), Darmstadt, Germany.
- 44. Freeman, J. (2004). "An Introduction to *Auracle*," at <u>Berliner Gesellschaft für Neue Musik</u>, Berlin, Germany.
- 45. Freeman, J. (2003). "Frugal Music: Small Pitch Sets, Infinite Sequences, and the Compositional Process," at Conservatorio di Musica, Piacenza, Italy.
- 46. Bleeker, J., Freeman, J., Zanni, C., Howe, D., Century, M., Saper, C., and Wattenberg, M. (2003). "Mobile Creativity: Innovations in Technology," at <u>Distributed Creativity</u>, Eyebeam. Guest in moderated online discussion.
- 47. Freeman, J. (2001). "Self-Similarity and Compositional Structure," at Music Department, University of Florida, Gainesville, Florida.
- 48. Paradiso, J., Freeman, J., Kimura, M., Levin, G., Rice, P., and Rowe, R. (2001). "The Internet, Interactivity, Multimedia: New Artistic Definitions," at Orchestra Tech National Conference, New York, New York. Panelist.

E. Grants and Contracts

E1. As Principal Investigator

Title of Project: Promoting Computational Thinking Through Middle School Music

Technology

Agency/Company: National Science Foundation

Total Dollar Amount: \$998,567

Role: Principal Investigator

Collaborators: Stephen Garrett, Doug Edwards

Period of Contract: 9/01/2021 – 8/31/2024

Candidate's Share: $\sim 66\%$ (\$650k)

Title of Project: Sustainable GT-France Collaborations at the Intersection of Music,

Science, and Technology

Agency/Company: Denning Seed Fund

Total Dollar Amount: \$15,000

Role: Principal Investigator

Collaborators: Chaowen Ting, Grace Leslie

Period of Contract: 7/01/2020 – 6/30/2021 Candidate's Share: ~66% (\$10k)

Title of Project: INTERN Supplement

Agency/Company: National Science Foundation

Total Dollar Amount: \$50,000

Role: Principal Investigator

Collaborators: Doug Edwards, Brian Magerko

Period of Contract: 8/01/2018 – 7/31/2019

Candidate's Share: $\sim 100\%$ (\$50k)

Title of Project: EarSketch and Music Education in Atlanta Public Schools

Agency/Company: Ruth L. Seigel Family Foundation

Total Dollar Amount: \$25,000

Role: Principal Investigator

Collaborators: James Caldwell

Period of Contract: 1/1/2018 - 12/31/2018

Candidate's Share: $\sim 100\%$ (\$25k)

Title of Project: I-Corps: Learning Intervention for Introductory Computer Science

Agency/Company: National Science Foundation

Total Dollar Amount: \$50,000

Role: Principal Investigator

Collaborators: Graham Courtney (Industry Mentor), Lea Ikkache (Entrepeneurial Lead)

Period of Contract: 5/30/2017 – 11/30/2019

Candidate's Share: $\sim 100\%$ (\$50k)

Title of Project: CS4HS
Agency/Company: Google Inc.
Total Dollar Amount: \$25,000

Role: Principal Investigator
Collaborators: Doug Edwards (co-PI)
Period of Contract: 6/1/2017 – 5/31/2018

Candidate's Share: ~75% (\$18k)

Title of Project: CS4HS

Agency/Company: Google Inc. Fund of Tides Foundation

Total Dollar Amount: \$34,508

Role: Principal Investigator
Collaborators: Doug Edwards (co-PI)
Period of Contract: 6/1/2016 - 5/31/2017

Candidate's Share: $\sim 75\%$ (\$25k)

Title of Project: Building a Replicable STEAM Pipeline Using EarSketch

Agency/Company: Arthur M. Blank Family Foundation

Total Dollar Amount: \$65,000

Role: Principal Investigator

Collaborators: Doug Edwards (co-PI), Brian Magerko (co-PI)

Period of Contract: 12/1/2015 - 12/31/2016

Candidate's Share: ~45% (\$30k)

Title of Project: 2016 Web Audio Conference Agency/Company: Georgia Tech College of Design

"Culture of Research Symposiums" Grant

Total Dollar Amount: \$10,000

Role: Principal Investigator
Collaborators: Alexander Lerch (co-PI)
Period of Contract: 1/1/2016 - 6/30/2016Candidate's Share: $\sim 100\%$ (\$10K)

Title of Project: 2016 Web Audio Conference

Agency/Company: Dolby Laboratories

Total Dollar Amount: \$3,000

Role: Principal Investigator

Collaborators: Alexander Lerch (co-PI), Matthew Paradis (co-PI)

Period of Contract: 8/1/2015 - 4/30/2016

Candidate's Share: $\sim 100\%$ (\$3k)

Title of Project: IUSE: Authentic STEAM-Based Computer Science Education for

Non-Majors

Agency/Company: National Science Foundation

Total Dollar Amount: \$250,000

Role: Principal Investigator

Collaborators: Brian Magerko (co-PI), Sebastien Siva (co-PI), Tacksoo Im (co-PI)

Period of Contract: 8/1/2015 - 7/31/2018

Candidate's Share: ~30% (\$75K)

Title of Project: Sonic Generator and Ensemble Variances

Agency/Company: French-American Fund for Contemporary Music

Total Dollar Amount: \$5,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 11/1/2015 – 12/31/2015

Candidate's Share: $\sim 100\%$ (\$5K)

Title of Project: DRK12: EarSketch: An Authentic, Studio-Based STEAM Approach to

High School Computing Education

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,969,084

Role: Principal Investigator

Collaborators: Brian Magerko (co-PI), Douglas Edwards (co-PI)

Period of Contract: 8/1/2014 – 7/31/2019

Candidate's Share: ~33% (\$1M)

Title of Project: Sonic Generator Performs at Erikson Clock

Agency/Company: The Goat Farm Arts Center Artist Investment Package

Total Dollar Amount: Approximately \$5,000 (in-kind)

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 5/1/2014 – 5/31/2014

Candidate's Share: $\sim 100\%$ (\$5K)

Title of Project: Georgia Tech Laptop Orchestra Performs at the Goat Farm Agency/Company: The Goat Farm Arts Center Artist Investment Package

Total Dollar Amount: Approximately \$10,000 (in-kind)

Role: Principal Investigator

Collaborators: n/a

Period of Contract: 4/1/2014 – 4/30/2014 Candidate's Share: ~100% (\$10K)

Title of Project: EarSketch Teacher Training Workshops Agency/Company: The Scott Hudgens Family Foundation

Total Dollar Amount: \$25,000

Role: Principal Investigator
Collaborators: Brian Magerko (co-PI)
Period of Contract: 10/1/2013 – 7/1/2014

Candidate's Share: $\sim 75\%$ (\$18K)

Title of Project: Sonic Generator Performs with Orchestre National de Lorraine

Agency/Company: French-American Fund for Contemporary Music

Total Dollar Amount: \$12,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 9/1/2013 – 6/1/2014
Candidate's Share: ~100% (\$12K)

Title of Project: Sonic Generator and Orchestre National de Lorraine Agency/Company: GVU Center at Georgia Tech Innovation Grant

Total Dollar Amount: \$10,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 7/1/2013 – 6/1/2014
Candidate's Share: ~100% (\$10K)

Title of Project: Sonic Generator General Operating Support

Agency/Company: Aaron Copland Fund for Music

Total Dollar Amount: \$2,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 7/1/2011 – 6/30/2012

Candidate's Share: ~100% (\$2K)

Title of Project: Sonic Generator Presents *Metropolis*

Agency/Company: Flux Projects
Total Dollar Amount: \$5,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 9/1/2011 – 6/1/2013
Candidate's Share: ~100% (\$5K)

Title of Project: Sonic Generator Presents *Metropolis*

Agency/Company: French-American Fund for Contemporary Music

Total Dollar Amount: \$5,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 9/1/2011 – 6/1/2013
Candidate's Share: ~100% (\$5K)

Title of Project: Sonic Generator General Operating Support

Agency/Company: Aaron Copland Fund for Music

Total Dollar Amount: \$2,000

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 7/1/2010 – 6/30/2011

Candidate's Share: $\sim 100\%$ (\$2K)

Title of Project: UrbanRemix

Agency/Company: Google Faculty Research Award

Total Dollar Amount: \$25,000

Role: Principal Investigator

Collaborators: Carl DiSalvo (co-PI), Michael Nitsche (co-PI)

Period of Contract: 8/1/2010 – 7/31/2011

Candidate's Share: $\sim 75\%$ (\$18K)

Title of Project: Sonic Generator Presents Music of IRCAM Agency/Company: French-American Fund for Contemporary Music

Total Dollar Amount: \$7,500

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 11/1/2010 – 11/31/2010

Candidate's Share: $\sim 100\%$ (\$5K)

Title of Project: Sonic Generator Presents The French-American Connection

Agency/Company: French Consulate in Atlanta

Total Dollar Amount: \$1,299

Role: Principal Investigator
Collaborators: Tom Sherwood (co-PI)
Period of Contract: 11/1/2009 – 11/31/2009

Candidate's Share: $\sim 100\%$ (\$1.3K)

Title of Project: UrbanRemix

Agency/Company: Georgia Tech College of Design Faculty Development Grant

Total Dollar Amount: \$6,524

Role: Principal Investigator

Collaborators: Carl DiSalvo (co-PI), Michael Nitsche (co-PI)

Period of Contract: 11/1/2009 - 6/1/2011

Candidate's Share: $\sim 50\%$ (\$3.2K)

Title of Project: Flock: Interfacing Crowds with Entertainers Agency/Company: GVU Center at Georgia Tech Seed Grant

Total Dollar Amount: \$15,000

Role: Principal Investigator
Collaborators: Frank Dalleart (co-PI)
Period of Contract: 8/15/2006 – 5/15/2007

Candidate's Share: $\sim 50\%$ (\$7.5K)

Title of Project: Flock

Agency/Company: Georgia Tech College of Design Faculty Development Grant

Total Dollar Amount: \$3,000

Role: Principal Investigator

Collaborators: n/a

Period of Contract: 8/1/2006 - 6/1/2008

Candidate's Share: $\sim 100\%$ (\$3K)

E2. As Co-Principal Investigator

Title of Project: EarSketch Competition
Agency/Company: Amazon Future Engineer

Total Dollar Amount: \$500,000

Role: Co-Principal Investigator

Collaborators: Roxanne Moore

Period of Contract: 10/01/2022-12/31/2023

Candidate's Share: $\sim 50\%$ (\$250k)

Title of Project: Designing a Computer Science + Music Learning Environment for

Visually Impaired Students

Agency/Company: Georgia Tech-Microsoft Accessibility Research Seed Grant Program

Total Dollar Amount: \$45,000

Role: Co-Principal Investigator

Collaborators: Stephen Garrett, Brian Magerko

Period of Contract: 9/1/2021 – 12/31/2022

Candidate's Share: $\sim 30\%$ (\$15k)

Title of Project: EarSketch Competition
Agency/Company: Amazon Future Engineer

Total Dollar Amount: \$700,000

Role: Co-Principal Investigator

Collaborators: Roxanne Moore

Period of Contract: 1/01/2021-12/31/2021

Candidate's Share: $\sim 30\%$ (\$200k)

Title of Project: Broadening Participation of Latinx Students in Computer Science by

Integrating Culturally Relevant Computational Music Practices

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,146,490

Role: Co-Principal Investigator

Collaborators: Diley Hernandez, Doug Edwards

Period of Contract: 7/01/2020-6/30/2024

Candidate's Share: $\sim 25\%$ (\$250k)

Title of Project: EarSketch Competition
Agency/Company: Amazon Future Engineer

Total Dollar Amount: \$715,000

Role: Co-Principal Investigator

Collaborators: Roxanne Moore
Period of Contract: 7/01/2020-6/30/2021
Candidate's Share: ~30% (\$200k)

Title of Project: EarSketch Competition
Agency/Company: Amazon Future Engineer

Total Dollar Amount: \$250,000

Role: Co-Principal Investigator

Collaborators: Roxanne Moore Period of Contract: 7/01/2019-6/30/2020

Candidate's Share: $\sim 35\%$ (\$100k)

Title of Project: Broadening Participation in Computer Science Through Programming and

the Arts Across Learning Spaces

Agency/Company: National Science Foundation

Total Dollar Amount: \$999,865

Role: Co-Principal Investigator

Collaborators: Michael Horn, Amy Pratt, Nichole Pinkard, Brian Magerko

Period of Contract: 9/01/2018 - 8/31/2021

Candidate's Share: $\sim 20\%$ (\$200k)

Title of Project: Engaging High School Students in Computer Science with Co-Creative

Learning Companions

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,119,822

Role: Co-Principal Investigator
Collaborators: Kristy Boyer, Brian Magerko
Period of Contract: 9/15/2018 – 9/14/2022

Candidate's Share: ~25% (\$500k)

Title of Project: Mixing Learning Experiences for Computer Programming Across

Museums, Classrooms, and the Home Using Computational Music

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,512,522

Role: Co-Principal Investigator
Collaborators: Brian Magerko (PI)
Period of Contract: 8/1/2016 – 7/31/2021
Candidate's Share: ~30% (\$800K)

Title of Project: CE21: Engaging African Americans in Computing Through the

Collaborative Creation of Musical Remixes

Agency/Company: National Science Foundation

Total Dollar Amount: \$999,706

Role: Co-Principal Investigator
Collaborators: Brian Magerko (PI)
Period of Contract: 8/31/2011 – 8/31/2015

Candidate's Share: $\sim 25\%$ (\$250K)

Title of Project: UrbanRemix

Agency/Company: GVU Center at Georgia Tech Innovation Grant

Total Dollar Amount: \$25,000

Role: Co-Principal Investigator

Collaborators: Carl DiSalvo (PI), Michael Nitsche (co-PI)

Period of Contract: 1/1/2010 - 6/1/2011

Candidate's Share: ~30% (\$8K)

Title of Project: CREATIVE IT: Modeling Musical Improvisation to Support Creativity in

Education and Performance

Agency/Company: National Science Foundation

Total Dollar Amount: \$762,372

Role: Co-Principal Investigator (2009 – 2012);

Principal Investigator (2012 – 2013)

Collaborators: Parag Chordia (PI), Melody Jackson (co-PI), Ge Wang (co-PI)

Period of Contract: 8/1/2009 – 7/31/2013

Candidate's Share: ~25% (\$190K)

E3. As Senior Personnel or Contributor

Title of Project: Technologies of Notation and Representation (TENOR Network)
Agency/Company: Social Sciences and Humanities Research Council of Canada

Total Dollar Amount: \$199,460 (Canadian)

Role: Partner

Collaborators: Sandeep Bhagwati and ~15 international partners

Period of Contract: 5/1/2018 - 4/30/2021

Title of Project: Culturally Authentic Practice to Advance Computational Thinking in

Youth (CAPACITY)

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,496,391

Role: Advisory Board Member

Collaborators: Marion Usselman (PI), Meltem Alemdar (co-PI), Doug Edwards (co-PI)

Period of Contract: 10/1/2016 - 9/30/2019

Title of Project: Drew Charter School Partners in Innovation Agency/Company: Race to the Top STEM Innovation Fund

Total Dollar Amount: \$385,426 Role: Faculty Advisor

Collaborators: Donna Whiting (PI), Ann Gerondelis (co-PI)

Period of Contract: 8/31/2011 - 8/31/2015

Candidate's Share: $\sim 5\%$ (\$20K)

E4. Pending Proposals

Title of Project: Designing Expressive CS Learning Environments Learners who are

Visually Impaired

Agency/Company: National Science Foundation

Total Dollar Amount: \$2,202,249 Role: Co-PI

Collaborators: Brian Magerko, Stephen Garrett, Bryan Pardo, Stephanie Ludi

Period of Contract: 8/1/2023 – 7/31/2026

Candidate's Share: $\sim 25\%$ (\$600k)

Title of Project: Exploring the Effects of AI-Augmented Support during Collaborative, Co-

Creative Computer Science Learning

Agency/Company: National Science Foundation

Total Dollar Amount: \$880,237 Role: Co-PI

Collaborators: Brian Magerko, Kristy Boyer Period of Contract: 8/16/2023 – 8/15/2026

Candidate's Share: ~25% (\$200k)

Title of Project: Promoting Computational Thinking Through Creative Computing

Platform Design

Agency/Company: National Science Foundation

Total Dollar Amount: \$1,299,555

Role: PI

Collaborators: Stephen Garrett, Jasmine Choi

Period of Contract: 4/1/2023 - 3/31/2026

Candidate's Share: $\sim 50\%$ (\$600k)

F. Other Scholarly and Creative Accomplishments

Nothing to Report.

G. Societal and Policy Impacts

A strong focus on community engagement, outreach, and societal impact includes:

- 1. <u>EarSketch</u> (2011 present): This research seeks to increase and broaden participation in computing, especially among female and minority high school students, through an approach that integrates computer science, music, and music technology in a culturally meaningful and industry relevant manner. Results to date have shown significant positive effects on content knowledge and student engagement with particularly promising results for female students. *EarSketch* is freely available online. It is in widespread use in K-12 and university classrooms throughout Georgia as well as nationally and internationally.
- 2. <u>UrbanRemix</u> (2009 2013): This artistic platform for locative sound recording, sharing, remixing, and performance was used in community and school-based outreach workshops and performances by professional electronic musicians and DJs. The project encouraged collaborative reflection on acoustic identity and natural soundscapes. In thirteen diverse collaborations over four years, *UrbanRemix* was used to tackle projects such as exploring homelessness in San Francisco's Tenderloin district, developing a new summer camp curriculum with Atlanta Public Schools and the Woodruff Arts Center, making sense of the cacophony of urban sounds in Times Square, and mounting a festival bringing together diverse communities in Middletown, Connecticut.
- 3. Sonic Generator (2006 2016): Founding executive director of this contemporary chamber music ensemble in residence at Georgia Tech. The ensemble brought innovative contemporary and experimental music with technology to new audiences in Atlanta and beyond. Concert highlights include a new music marathon performance at the Woodruff Arts Center; a performance of a seminal ballet by Finnish composer Kaija Saariaho with Robert Spano and gloATL at Symphony Hall; an outdoor screening of *Metropolis* with a new score by Martin Matalon; and joint performances with the Orchestre National de Lorraine at Georgia Tech and at L'Arsenal in Metz, France. The Atlanta press regularly named Sonic Generator to its best-of-Atlanta and best-of-year lists, and concerts consistently draw crowds that do not typically listen to classical, contemporary, or electronic music.

Expert Witness Roles

1. Expert witness for Alston and Bird, LLP in <u>Activision v. Gibson</u>, patent litigation concerning the *Guitar Hero* video game franchise (2009).

Press and Media Coverage

Professional and Trade Press

- 1. *Masson-Forsyth, H. (2022). "Hip-hopping into a career in computer science," in <u>National Science Foundation Science Matters</u>. https://beta.nsf.gov/science-matters/hip-hopping-career-computer-science.
- 2. *Quinn, B. (2017). "EngageCSEdu: Recognizing Great Intro CS Teaching," in <u>ACM Inroads</u>, Volume 8, No. 4.

- 3. *Sigman, M. (2013). "Mannes Enters the Modern Era," in <u>Opera News</u>. Available at http://www.operanews.com/Opera_News_Magazine/2013/8/Features/Mannes_Enters_the_Modern Era.html.
- 4. *(2013). "Algorithmic Music Composition," in <u>CS Bits & Bytes</u>, a publication of the <u>National Science Foundation</u>. Available at http://www.nsf.gov/cise/csbytes/newsletter/vol2/vol2i10.html.
- 5. *Loncharich, L. (2009). "The *Piano Etudes* Project: A Space for Play," on <u>Furtherfield</u>. Available at http://www.furtherfield.org/displayreview.php?review_id=352.
- 6. *Zarou, R. (2009). "Interview: Jason Freeman," on <u>No Extra Notes</u> (podcast). Available at http://noextranotes.wordpress.com/2009/04/19/jason-freeman/.
- 7. *(2009). "Nine Composers Matched with Orchestras in New Music Alive Partnerships," on NewMusicBox. Available at http://www.newmusicbox.com/article.nmbx?id=5927.
- 8. *Vieru, T. (2009). "Piano Etudes Allow Audiences to Create Songs," in Softpedia News.
- 9. *Kelderman, E. (2009). "Composers and Computers Work in Harmony at Georgia Tech's Music Center," in <u>The Chronicle of Higher Education</u>, 55:21, p. A11.
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- 12. *Erickson, J. (2008). "Editor's Note: *Flou*'ing the Coop, Or Music Meets Science," in <u>Dr.</u> Dobb's Report.
- 13. *Olson, M. (2008). "Flock and Flou," in Rhizome News. Daily publication from Rhizome and the New Museum of Contemporary Art focusing on a single artist in each issue. Available at http://rhizome.org/editorial/2008/feb/11/flock-and-flou/.
- 14. *Anderson, K. (2008). "Tech's Next Step," in <u>Inside Arts</u>, January February 2008, pp. 65-72. Cover story for this magazine, published by the Association for Performing Arts Presenters.
- 15. *Thomas, C. (2007). "The Music of Technology," in <u>Society of Women Engineers Magazine</u>, 53:5, pp. 22-31.
- 16. *Thorington, H. (2007). "Interview: Jason Freeman," in <u>Networked Music Review</u> research blog. Available at http://turbulence.org/networked_music_review/2007/03/11/interview-jason-freeman/.
- 17. *Wolf, M. (2005). "iTunes Autograph," in <u>Rhizome News</u>. Available at http://rhizome.org/editorial/2005/dec/12/itunes-autograph/.
- 18. Chan, D. (2005). "Jason Freeman's Othello Principle," in New York Arts Magazine, 10:5-6.
- 19. MacBlane, A. (2003). "Auf der Autobahn: American Sound Artists Bring Collaboration to 'Solitude'," in NewMusicBox. Available at NewMusicBox. Available at NewMusicBox.

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International Press

- 1. (2015). "Internet Implosions: How We Live Between the Virtual World and the Reality," in <u>Vice China</u>. Available at http://www.vice.cn/read/Internet-implosions-how-we-live-between-the-virtual-world-and-the-reality.
- 2. Golini, M. (2015). "Music Tech Metz: Unir Science et Art," in <u>La Rèpublicain Lorrain</u> (Metz, France). Available at http://www.republicain-lorrain.fr/edition-de-metz-ville/2015/05/06/music-tech-metz-unir-science-et-art.
- 3. Salinas, P. (2014). "ONL: le pari américain," in <u>La Semaine</u> (Metz, France). Available at http://www.bizjournals.com/atlanta/blog/atlantech/2014/06/tech-startup-accelerator-flashpoint-raises-second.html.
- 4. Sarre, C. (2011). "Am New Yorker Times Square entstanden im Projekt '*Urban Remix*' hunderte Geräuschinstallationen als lebendes Audio-Archiv dieses Ortes," on <u>Ö1 / ORF</u> Austrian Radio.
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- 9. Davis, B. (2006). "Robots Find Their Rhythm," in Jerusalem Post.
- 10. Heisenbuettel, D. (2005). "Solo aus dem off," in Stuttgarter Zeitung.

National Press

- 1. McEnroe, C. (2022). "Who's inventing new instruments?", one-hour live radio show interview show on WNPR, podcast distributed by NPR, August 3, 2022.
- 2. (2021). "Invented Instruments," in Scholastic Science World, August 2021.
- 3. Fonseca-Wollheim, C. (2021). "Listen to Five of the World's Newest, Wildest Instruments," in The New York Times, March 19, 2021.
- 4. (2020). "Amazon giving free access to online computer science courses to students, teachers, parents." Article reprinted in local news outlets nationwide, including ROI-NJ, CBS46 News Atlanta, T.H.E. Journal, City-Sentinel, Chicago Daily Herald, and others (April 2020).
- 5. Keene, C. (2020). "High-Tech Tunes: Professor marries music with programming in tool to teach coding to students," in <u>Diversity in Action</u>, Summer 2020 issue (Vol. 6, No. 4): 10-11. Available at https://mydigitalpublication.com/publication/?m=46265&i=663138&p=12.
- 6. France, L. (2019). "Ciara comes home to surprise STEM students," on <u>CNN.com</u>. https://www.cnn.com/2019/12/16/entertainment/ciara-amazon-stem/index.html. Syndicated to 10 other media outlets.
- Strauss, J. (2019). "Ciara surprises Georgia students using STEM to remix songs," <u>Associated Press</u>. https://apnews.com/70008743130ff8cd459db69f8d5e6213. Syndicated to 116 other media outlets including <u>New York Times</u>, <u>Washington Post</u>, <u>US News and World Report</u>, <u>Seattle Times</u>, and <u>ABC News</u>.
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- 13. *Beals, S. (2013). "MiddletownRemix Festival Saturday Celebrates City's Eclectic Arts Scene," in <u>The Hartford Courant</u>. Available at Http://www.courant.com/community/middletown/hc-middletown-remix-0510-20130509,0,3930910.story.
- 14. *(2013). "Remix festival set for Saturday in Middletown," in <u>The Middletown Press</u>. Available at middletownpress.com/articles/2013/05/08/entertainment/doc518ac20c44b2e551027985.txt.
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- 19. *(2012). "Middletown Gets Remixed," on <u>WNPR</u> (Connecticut Public Radio). Available at http://www.yourpublicmedia.org/node/21728.
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- 22. *Ford, A. (2010). "Interview: Jason Freeman (*Piano Etudes*)," on <u>The Music Show</u> (Australian National Radio).
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- 25. *Gresko, J. (2008). "Spectators in Glowing Hats Conduct Music," in The Associated Press.
- 26. *Borland, J. (2007). "New Musical Work Treats Audience Like Notes in a Score," on Wired.com. Available at http://www.wired.com/entertainment/music/news/2007/04/concert_score.
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- 32. Siegel, R. (2003). "Interview: Jason Freeman (*N.A.G.*)," on <u>All Things Considered</u> (National Public Radio).
- 33. (2003). "Download of the Day: N.A.G.," on <u>USAToday.com</u>.
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Times.

- 35. Siegel, R. (2001). "Interview: Jason Freeman (*Shakespeare Cuisinart*)," on <u>All Things Considered</u> (National Public Radio).
- 36. Mirapaul, M. (2001). "Coaxing On-Hold Melodies (Your Own) From a Phone," in <u>The New York Times</u>.
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- 38. Mirapaul, M. (2000). "At Columbia, Music Videos for Electronic Compositions," on NYTimes.com. Available at http://partners.nytimes.com/library/tech/00/07/cyber/artsatlarge/13artsatlarge.html.

Local Press

Local press coverage includes 23 articles in the <u>Atlanta Journal-Constitution</u>, 9 in <u>Creative Loafing</u>, 8 radio features on <u>WABE</u> (Atlanta public radio), 2 features on WSBTV, 1 on 11 Alive, and 1 in the <u>Savannah Morning News</u>, all during my time at Georgia Tech. In addition:

- 1. *An article about EarSketch was featured on <u>Educating Georgia's Future</u>, a website from the Superintendent of the Georgia Department of Education highlighting educational success stories in the state (2017).
- 2. *The <u>Atlanta Journal-Constitution</u> named Sonic Generator performances to their best-of-year music list in 2009, 2013, 2014, and 2015.
- 3. *Creative Loafing named Sonic Generator to its 2011 and 2013 "Best of Atlanta" lists and its 2013 "best in year" list for music.
- 4. *The Atlantan named me as one of "15 Atlanta Art Mavericks" in 2011.
- 5. *Creative Loafing featured me on their cover as one of "8 Artists to Watch" in 2010.
- 6. *Atlanta Magazine named Sonic Generator to its "Best of Atlanta" list in 2009.

Weblogs

Coverage on major music technology weblogs such as Evolver.fm, Create Digital Music, and The Rest Is Noise. Coverage on major general technology blogs such as Ajaxian, Ars Technica, LifeHacker, and BoingBoing. Coverage on local Atlanta blogs such as ArtsAtl (28 articles), Burnaway, Saporta Report, and Atlanta Music Critic. ArtsAtl.com named Sonic Generator performances among the year's best in music in 2011, 2012, 2013, 2014, and 2015.

H. Other Professional Activities

- 1. Consultant for **ZooZ Mobile** on an interactive music smartphone app (2012).
- 2. Consultant for Movement, Ltd and ZooZ Mobile on a major advertising campaign for the Coca-Cola Company for the 2012 London Olympics (2011 2012). Served as project manager and lead audio developer for the interactive music components of the campaign's web site and smartphone applications. The app was downloaded over 360,000 times.

V. Teaching

A. Courses Taught (last six years)

Semester	Year	Course No.	Course Title	No. of Students
Fall	2022	MUSI 4456	Music Tech History and Repertoire	9
Fall	2022	MUSI 6003	Music Tech History and Repertoire	44
Fall	2022	MUSI 7100	Music Tech Research Lab	5
Fall	2022	MUSI 7998	Prep Doctoral Qualifying Paper	1
Fall	2022	MUSI 9000	Doctoral Thesis	2
Spring	2022	MUSI 2015	Laptop Orchestra	26
Spring	2022	MUSI 7100	Music Tech Research Lab	3
Spring	2022	MUSI 7999	Prep Doctoral Qualifying Exam	1
Spring	2022	MUSI 8002	Teaching Practicum	1
Spring	2022	MUSI 9000	Doctoral Thesis	1
Fall	2021	MUSI 7100	Music Tech Research Lab	6
Fall	2021	MUSI 7999	Prep Doctoral Qualifying Exam	1
Spring	2021	MUSI 2015	Laptop Orchestra	19
Spring	2021	MUSI 7100	Music Tech Research Lab	6
Spring	2021	MUSI 9000	Doctoral Thesis	1
Spring	2021	MUSI 7998	Prep Doctoral Qualifying Paper	1
Fall	2020	MUSI 4456	Music Tech: History & Rep	9
Fall	2020	MUSI 6003	Music Tech: History & Rep	20
Fall	2020	MUSI 7100	Music Tech Research Lab	6
Fall	2020	MUSI 8001	Research Methods	1
Fall	2020	MUSI 8002	Teaching Practicum	1
Fall	2020	MUSI 9000	Doctoral Thesis	1
Spring	2020	MUSI 2015	Laptop Orchestra	24
Spring	2020	MUSI 7100	Music Tech Research Lab	3
Spring	2020	MUSI 9000	Doctoral Thesis	1
Fall	2019	MUSI 6002	Interactive Music	24
Fall	2019	MUSI 4670	Music Interface Design	8
Fall	2019	MUSI 7100	Music Tech Research Lab	3
Fall	2019	MUSI 4699	Undergraduate Research	1
Fall	2019	MUSI 8002	Teaching Practicum	1
Fall	2019	MUSI 9000	Doctoral Thesis	1
Spring	2019	MUSI 2015	Laptop Orchestra	25
Spring	2019	MUSI 7100	Music Tech Research Lab	3
Spring	2019	MUSI 9000	Doctoral Thesis	1
Spring	2019	MUSI 4699	Undergraduate Research	1
Fall	2018	MUSI 4456	Music Tech: History & Rep	2
Fall	2018	MUSI 6003	Music Tech: History & Rep	27
Fall	2018	MUSI 4699	Undergraduate Research	2
Fall	2018	MUSI 7100	Music Tech Research Lab	3
Fall	2018	MUSI 9000	Doctoral Thesis	1
Summer	2018	MUSI 4699	Undergraduate Research	1
Summer	2018	MUSI 9000	Doctoral Thesis	1
Spring	2018	MUSI 4458	Computer Music Composition	9
Spring	2018	MUSI 6304	Computer Music Composition	12
Spring	2018	MUSI 7100	Music Tech Research Lab	11
Spring	2018	MUSI 9000	Doctoral Thesis	1
Fall	2017	MUSI 4699	Undergraduate Research	1
Fall	2017	MUSI 6002	Interactive Music	28
Fall	2017	MUSI 7100	Music Tech Research Lab	13

Fall	2017	MUSI 8002	Teaching Practicum	1
Fall	2017	MUSI 9000	Doctoral Thesis	1
Spring	2017	MUSI 2015	Laptop Orchestra	14
Spring	2017	MUSI 4699	Undergraduate Research	3
Spring	2017	MUSI 7100	Music Tech Research Lab	9
Spring	2017	MUSI 7999	Prep Doct. Qual Exams	2
Fall	2016	MUSI 6003	Music Tech History & Repertoire	32
Fall	2016	MUSI 7100	Music Tech Research Lab	10
Fall	2016	MUSI 8001	Research Methods	1
Spring	2016	MUSI 4699	Undergraduate Research	1
Spring	2016	MUSI 6304	Computer Music Composition	18
Spring	2016	MUSI 7100	Music Tech Research Lab	6
Spring	2016	n/a	Survey of Music Technology (Coursera)	4,882
Fall	2015	MUSI 7100	Music Tech Research Lab	7
Fall	2015	MUSI 6002	Interactive Music	15
Fall	2015	MUSI 7998	Prep. Doct. Qualifying Paper	1
Fall	2015	n/a	Survey of Music Technology (Coursera)	3,149
Summer	2015	MUSI 7100	Music Tech Research Lab	3
Spring	2015	MUSI 7100	Music Tech Research Lab	9
Spring	2015	MUSI 4699	Undergraduate Research	1
Spring	2015	MUSI 7000	Masters Thesis	1
Spring	2015	MUSI 8001	Research Methods	1
Spring	2015	MUSI 8002	Teaching Practicum	1
Spring	2015	MUSI 6002	Interactive Music	25
Fall	2014	MUSI 7100	Music Tech Research Lab	8
Fall	2014	MUSI 6003	Music Tech: History and Repertoire	25
Fall	2014	MUSI 8002	Teaching Practicum	1
Fall	2014	n/a	Survey of Music Technology (Coursera)	11,825
Spring	2014	MUSI 4803	Special Topics: Undergraduate Research	1
Spring	2014	MUSI 6203	Project Studio in Music Technology	25
Spring	2014	MUSI 7100	Music Tech Research Lab	8
Spring	2014	MUSI 8903	Special Topics: Musical Architecture	6
Fall	2013	MUSI 7100	Music Tech Research Lab	10
Fall	2013	MUSI 6304	Computer Music Composition	15
Fall	2013	n/a	Survey of Music Technology (Coursera)	24,095
Spring	2013	MUSI 7100	Music Tech Research Lab	8
Fall	2012	MUSI 6003	Music Tech: History and Repertoire	18
Fall	2012	MUSI 7100	Music Tech Research Lab	8
Fall	2012	MUSI 8002	Teaching Practicum	1
Fall	2012	MUSI 9000	Doctoral Thesis	1

B. Individual Student Guidance

(all students in Music Technology at Georgia Tech unless otherwise indicated)

B1. Ph.D. Students

- 1. McCall, L. (Fall 2021 present). Passed qualifying exams and completed coursework; preparing dissertation proposal. Recipient of GT Institute Fellowship.
- 2. Smith, J. (Fall 2020 present). Successfully defended dissertation proposal; writing dissertation.
- 3. Clester, I. (Fall 2020 present). Completing coursework.

- 4. Tsuchiya, T. (Summer 2015 May 2021). Thesis: "Composing and Decomposing Electroacoustic Sonifications: Towards a Functional-Aesthetic Sonifications Design Framework." Currently at Samsung.
- 5. Martinez, J. (Fall 2013 Spring 2018). Thesis: "The Algorithmic Score Language: Extending Common Western Music Notation for Representing Logical Behaviors." Currently at Apple.

B2. M.S. Students (indicate thesis option for each student)

- 1. Allen, B. (current MS student).
- 2. Xu, J. (current MS student).
- 3. Jiang, S. (current MS student).
- 4. Tillman, S. (current BS/MS student).
- 5. Dasari, S. (graduated fall 2021). Project: "Comparison of Genetic Algorithms in Live Coding Music." Currently machine learning engineer at Simeio Solutions.
- 6. McCall, L. (graduated spring 2021). Project: "3D Graphic Score Space." Currently pursuing PhD in music technology at Georgia Tech.
- 7. Ethridge, D. (graduated spring 2021). Project: "Effects of Cross-Instrumental Control on Musical Engagement in a Network Music Environment." Currently working at Georgia Tech Research Institute.
- 8. Sarwate, A. (graduated spring 2019). Project: "Mapping Improvised Music to Visuals." Currently software engineer at Layers.
- 9. Wu, Y. (graduated spring 2019). Project: "Ripples: An Environment Musification iOS Application for Atlanta Botanical Garden." Currently doctoral student in music technology at New York University.
- 10. Liu, H. (graduated spring 2018). Project: "Checkpoint: A Synth Sound Replicator Eurorack Module." Currently algorithm engineer at Xiaomi Technology.
- 11. Kerure, A. (graduated spring 2018). Project: "Audio Source Localization as an Input to Virtual Reality Systems." Currently Audio Experiences Prototyper at Meta.
- 12. Yan, Z. (graduated spring 2018). Project: "Guitarcade II."
- 13. Ogata, T. (graduated spring 2018). Project: "Light Controller for Eurorack Modular Synth."
- 14. Wang, S. (graduated spring 2017). Project: "Step into the Soundtrack." Founder at Sonic Hits.
- 15. Cheng, S. (graduated spring 2017). Project: "Sound Hockey: A Web Based Music Environment for Parameter Visualization and Sound Design." Currently Senior Software Engineer at Microsoft.
- 16. Ikkache, L. (graduated spring 2017). Project: "Memory Palace, a Sound Exhibition Preparation." Currently Consultant at Greenworking.

- 17. Bhanu, N. (graduated spring 2017). Project: "Astral Plane: An Intelligent Interface for Interactive Sound Spatialization." Currently Audio Hardware Engineer at Google.
- 18. Hendler, G. (graduated fall 2016). Project: "Design and Implementation of SB-4000, a Guitar-Inspired Continuous Control Interface."
- 19. Niu, J. (graduated Spring 2016). Project: "A Tablet-Optimized Visual Coding Environment for EarSketch." Currently computer system engineer at APEX Semiconductors.
- 20. Verdin, R. (graduated Spring 2016). Project: "An Interface for Sequencing Novel Rhythms." Currently Software Engineer at Gridmatic.
- 21. Latina, C. (graduated Spring 2016 co-advise with Alexander Lerch). Project: "Machine Listening Module." Currently Senior Software Engineer at Dolby Laboratories.
- 22. Deeb, E. (graduated Summer 2015). Project: "A Curriculum for Teaching Acoustics, Additive Manufacturing, and Instrument Design to Music Theory Students." Currently Business Development Manager at T & M Associates.
- 23. Howe, C. (graduated Spring 2015). Thesis: "Analog Synthesizers in the Classroom: How Creative Play, Musical Composition, and Interest Driven Learning Can Enhance STEM Standard Mastery." Currently Senior Software Engineer at Universal Audio.
- 24. Mahadevan, A. (graduated Spring 2015). Project: "A Blockly-based Programming Environment for *EarSketch*." Currently Staff Engineer at Dolby Laboratories.
- 25. Tsuchiya, T. (graduated Spring 2015). Project: "Data-To-Music API: Real-time Data-Agnostic Sonification with Musical Structure Models." Currently at Samsung.
- 26. Short, B. (graduated Fall 2014). Project: "On the Design of a Mapping for Realtime Improvisation."
- 27. Fan, Z. (graduated Spring 2014). Project: "Bootlegger: An Online Interactive Platform for Mixing Music." Currently developer at Alibaba music group.
- 28. Xie, S. (graduated Spring 2014). Project: "Modeling Audio Effects Circuits." Currently Engineer and co-founder at Ample Sound.
- 29. Shen, W. (graduated Spring 2013). Project: "A Chord Recognition Application for iOS." Currently Tech Lead, Senior Software Engineer at Google.
- 30. Chen, Y. (graduated Spring 2013). Project: "Mobile Conducting Game Interacting with Touch Interface on Mobile Devices." Currently Lead iOS Developer at Sweetspot.
- 31. McCoid, S. (graduated Spring 2013). Project: "SAM: Spectral Audio Modulator." Currently Software Engineer at Ableton.
- 32. Lee, S. (graduated Spring 2012). Thesis: "Audience Participation Using Mobile Phones as Musical Instruments." Currently Assistant Professor at Virginia Tech.
- 33. Weitzner, N. (graduated Fall 2012). Project: "A Performance Interface for the Creative Exploration of Sonic and Visual Art." Currently PhD candidate at UC Santa Barbara.
- 34. Daruwalla, A. (graduated Spring 2012). Project: "Modeling a Magnetic Guitar Pickup Capable

- of Emulating Any Guitar Pickup." Currently Manager of MEMS and Process Engineering at Stathera.
- 35. Subramanian, S. (graduated Spring 2012). Project: "Rhythmic Machine Musicianship."
- 36. Vaidya, N. (graduated Spring 2012). Project: "An API for Effects Automation Envelopes and Automatic Music Mashup Generation." Currently Electrical Engineer at Fender Musical Instruments.
- 37. Garrett, S. (graduated Spring 2011). Project: "*massMobile* Audience Participation." Co-advised MS HCI project with Ellen Do. Currently Research Scientist at Georgia Tech.
- 38. Collela, A. (graduated Spring 2011). Project: "ScoreRunner: Gaming as Performance." Currently VP of Software Engineering, PrimeRevenue.
- 39. Gaxiola, G. (graduated Spring 2010). Project: "Traje Ritmo: A Wearable Musical Controller." Currently Software Engineer at Greenlight.
- 40. Van Troyer, A. (graduated Spring 2010). Project: "*LOLC*: A Computer Music Language for Collaborative Improvisation." Currently Assistant Professor at Berklee College of Music.
- 41. Beck, A. (graduated Spring 2010). Project: "Collaborative Music: An Instrument That Makes You Sweat." Currently Founder at Elastic Audio.
- 42. Willingham, A. (graduated Spring 2010). Project: "An Engaging Live Laptop Performance." Currently Director, Amazon Stores Talent Experience at Amazon.
- 43. Mynampati, V. (graduated Spring 2009). Project: "Droid Synth: Design and Implementation of a Software Sound Synthesizer on Google's Android." Currently Senior Broadcast Audio Engineer at Dolby Laboratories.
- 44. Jayaprakash, J. (graduated spring 2009). Project: "Computer Generative Music for Improvisational Theater." Currently senior software engineer at CDK Global.

B3. Undergraduate Students

- 1. Paley, J. (summer 2022). Undergraduate Research Assistant working on *EarSketch*.
- 2. Missner, S. (Spring 2022 present). Undergraduate Research Assistant working on *EarSketch*.
- 3. Tillman, S. (Summer 2020 present). Undergraduate Research Assistant working on *EarSketch*.
- 4. Jeffres, M. (Summer 2020 Spring 2021). Undergraduate Research Assistant working on *EarSketch*.
- 5. Kansal, A. (Fall 2020 Spring 2021). Undergraduate student working on capstone project.
- 6. Bullard, C. (Fall 2020 Spring 2021). Undergraduate student working on capstone project.
- 7. Law, J. (Fall 2019). Supervised Research for Credit working on music + math education tools.
- 8. Gardner, A. (Fall 2019 present). Undergraduate Research Assistant working on *EarSketch*.

- 9. Kansal, A. (Fall 2019 spring 2020). Undergraduate Research Assistant working on *TuneTable*.
- 10. Bosen, K. (Fall 2018 spring 2020). Undergraduate Research Assistant working on *TuneTable*.
- 11. Heffley, C. (Fall 2018 spring 2020). Undergraduate Research Assistant working on *TuneTable*.
- 12. Levine, S. (Fall 2018). Supervised Research for Credit working in *EarSketch*.
- 13. Bussell, L. (Fall 2018). Supervised Research for Credit working in *EarSketch*.
- 14. Cochran, T. (Fall 2017 Spring 2018). Undergraduate Research Assistant working on *EarSketch*.
- 15. Vinchli, A. (Spring 2017 Fall 2017). Supervised Research for Credit working in *EarSketch*.
- 16. Nayak, S. (Spring 2017). Supervised Research for Credit working on *EarSketch*.
- 17. Kim, D. (Spring 2017). Supervised Research for Credit working on *EarSketch*.
- 18. Lopez, W. (Fall 2016). Undergraduate Research Assistant working on *EarSketch*.
- 19. Harris, R. (Summer 2016). Undergraduate Research Assistant from Northwestern University working on *EarSketch*.
- 20. Bunch, C. (Summer 2015 present). Undergraduate Research Assistant working on *EarSketch*.
- 21. Bunch, C. (Spring 2015). Supervised Research for Credit working on *EarSketch*.
- 22. Agarwal, S. (Fall 2014). Undergraduate Research Assistant working on *EarSketch*.
- 23. Akins, A. (Spring 2014). Supervised Research for Credit working on *massMobile*.
- 24. Marsten, A. (Summer 2013). Undergraduate Research Assistant from Carnegie Mellon working on *EarSketch*.
- 25. Shooter, N. (Spring 2012). Undergraduate Research Assistant working on *EarSketch*.
- 26. Richards, E. (Summer and Fall 2012). Undergraduate Research Assistant working on *EarSketch*. (Co-Advisor: Brian Magerko.)
- 27. Livingston, E. (Fall 2011 Summer 2014). Undergraduate Research Assistant working on *EarSketch*. (Primary advisor: Brian Magerko.)
- 28. Reach, C. (Fall 2010). Supervised Research for Credit working on audio visualization. (Co-Advisor: John Stasko.)
- 29. Macy, M. (Spring 2008). PURA Undergraduate Research Assistant. (Co-Advisor: Jude LeBlanc.)

B4. Service on Thesis or Dissertation Committees

- 1. Payne, W. PhD dissertation at New York University (in progress).
- 2. Alben, N. MS thesis at Georgia Tech (in progress).
- 3. Irvin, B. MS thesis at Georgia Tech (in progress).
- 4. Strickland, S. (2022). PhD dissertation in Music: "Online Real-Time Collaborative Audio Mixing: A New Audio Mixing Paradigm." University of Newcastle, Australia.
- 5. Savery, R. (2021). PhD dissertation in Music Technology: "Machine Learning Driven Musical Prosody for Human-Robot Interaction."
- 6. Gururani, S. (2020). PhD dissertation in Music Technology: "Weakly Supervised Learning for Musical Instrument Classification."
- 7. Pati, A. (2020). PhD dissertation in Music Technology: "Learning to Manipulate Latent Representations of Deep Generative Models."
- 8. Weisling, A. (2020). PhD dissertation in Digital Media: "Risk and Expression: Physical and Material Risk States in Computational Music Practices."
- 9. Wu, C. (2018). PhD dissertation: "Extendable Learning for Automatic Music Transcription Improving Automatic Drum Transcription with Labeled and Unlabeled Data."
- 10. Carvalho, A. (2017). PhD dissertation at Instituto de Matemática e Estatística, Universidade de São Paulo: "Mobile Technologies for Music Interaction."
- 11. Bretan, M. (2017). PhD dissertation: "Musical Path Planning: Integrating the Cognitive with the Physical for Robotic Music Performance."
- 12. Kolenc, A. (2015). MS project in Digital Media at Georgia Tech: "Leitmotif in a Dynamic Environment."
- 13. O'Brien, C. (2015). MS thesis: "Supervised Feature Learning via Sparse Coding for Music Information Retrieval."
- 14. Livingston, E. (2014). BS thesis in Computational Media at Georgia Tech: "A Qualitative Study on Engaging Students in Computing Through Computational Remixing With *EarSketch*."
- 15. Yao, S. (2012). MS project in Digital Media at Georgia Tech: "A Social Networking Site for *EarSketch*."
- 16. Sastry, A. (2011). MS thesis: "N-Gram Modeling of Tabla Sequences Using Variable-Length Hidden Markov Models for Improvisation and Composition."
- 17. Senturk, S. (2011). MS thesis: "Computational Modeling of Improvisation in Turkish Folk Music Using Variable-Length Markov Models."
- 18. Nikolaidis, R. (2011). MS thesis: "A Generative Model of Tonal Tension and Its Application in Dynamic Realtime Sonification."
- 19. Barnwell, T. (2010). MS project in Digital Media at Georgia Tech: "The Resound Project."

- 20. Malikarjuna, T. (2010). MS thesis: "Towards Expressive Melodic Accompaniment Using Parametric Modeling of Continuous Musical Elements in a Multi-attribute Prediction Suffix Trie Framework."
- 21. Cao, X. (2009). MS thesis: "Automatic Accompaniment of Vocal Melodies in the Context of Popular Music."
- 22. Rae, A. (2009). MS thesis: "Generative Rhythmic Models."
- 23. Godfrey, M. (2008). MS thesis: "Hubs and Homogeneity: Improving Content-Based Music Modeling."

B5. Mentorship of Postdoctoral Fellows or Visiting Scholars

- 1. Advising Matthius Jung (Fall 2022), visiting PhD scholar from University of Agder, Norway.
- 2. Advised Astrid Bin (Winter 2018 fall 2019), postdoctoral researcher on *TuneTable*. (Coadvisor: Brian Magerko.)
- 3. Advised Jack Armitage (Fall 2017), visiting PhD scholar from Queen Mary, University of London.
- 4. Advised Gerard Roma (Winter 2017 Summer 2017), postdoctoral researcher on *EarSketch* and *TuneTable*. (Co-advisor: Brian Magerko.)
- 5. Advised Anna Xambo (Summer 2015 Summer 2017), postdoctoral researcher on *EarSketch* and *TuneTable*. (Co-advisor: Brian Magerko.)
- 6. Advised Zhou Li (Fall 2013 Fall 2014), visiting researcher from School of Music, China University of Geosciences.
- 7. Advised Joseph Lyske (Fall 2012), visiting PhD scholar from Queen Mary, University of London. (Co-advisor: Michael Nitsche.)

C. Other Teaching Activities

- 1. Online Education (2013 2018): Developed and taught a version of MUSI 3450 (Survey of Music Technology) appropriate for use as a massive open online course (MOOC), including lecture slides and videos, quizzes and assignments, and an adapted curriculum suited to the unique challenges of this learning environment (such as copyrights, the absence of dedicated lab facilities, and the need to use free software). It was the first MOOC offering from the College of Design and has a total enrollment of over 50,000 students.
- 2. <u>Interdisciplinary Teaching</u> (2014): Led an interdisciplinary graduate course in musical architecture with faculty and students from music, architecture, industrial design, and human-computer interaction working closely with artists-in-residence New Orleans Airlift. The course led to the creation of an interactive musical house that was exhibited outdoors in central campus (2014, November January).
- 3. New Degree Programs (2010 2016): Led the development and approval of the Ph.D. program in music technology, which was approved in 2010. Made substantial contributions to the development of the B.S. in music technology degree proposal, which launched in fall 2016.
- 4. Revised Course Curriculum (2011 2013): Substantially modified the curricular content and

- structure of MUSI 6002 (Interactive Music), MUSI 6302 (Project Studio in Music Technology), and MUSI 7100 (Music Tech Research Lab) to increase focus on research methods, practice-based research, and studio-based learning approaches.
- 5. <u>Service</u> (2007 present). Served every year on the Music Technology Graduate Program Committee. Responsibilities include recruiting and admissions for graduate programs, program review, and authoring and administering doctoral qualifying exams. For the 2013-2014 academic year, served as Interim Director of Graduate Studies.
- New Course Development (2005 2017): Developed and taught three new courses in the MS program MUSI 6003 (Music Technology: History and Repertoire), MUSI 6303 (Network Music), and MUSI 6304 (Computer Music Composition) and one new course for the BS program MUSI 2015 (Laptop Orchestra).

VI. Service

A. Professional Contributions

Conference Leadership

- 1. Member, steering committee, Web Audio Conference (2022 present).
- 2. Conference Chair for the Web Audio Conference (WAC 2016).
- 3. Head of the jury for laptop works at the International Computer Music Conference (ICMC 2013).
- 4. Music Chair for the International Community for Auditory Display (ICAD 2012) conference.
- 5. Media showcase Chair for the Computer Human Interaction Conference (ACM CHI 2010).
- 6. Member of the three-person organizing committee for Music in the Global Village (2009), a conference on networked music in Budapest, Hungary.

Program Committee Membership

- 1. ACM Creativity and Cognition (CC 2009, CC 2011, CC 2013, and CC 2017).
- 2. Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2016).
- 3. Technologies for Music Notation and Representation (TENOR 2016, 2017, 2018, 2020, 2021).
- 4. International Symposium on Electronic Art (ISEA 2015).
- 5. Web Audio Conference (WAC 2015, 2017, 2018, 2019, 2022).
- 6. ACM Multimedia (2013, 2014, 2016).
- 7. Musical MetaCreation (MUME 2012, 2013, 2014, and 2016 for papers; 2017 for artistic program).

- 8. International Computer Music Conference for papers (ICMC 2006, 2007, 2008, 2009, and 2012) and music (ICMC 2010, 2012, and 2015).
- 9. New Interfaces for Musical Expression Conference for papers (NIME 2006 2011 and 2014 2018) and music (NIME 2011, 2012, and 2017).

Service as a Reviewer

- 1. City of Atlanta Mayor's Office of Cultural Affairs (2022).
- 2. Personal and Ubiquitous Computing (2022).
- 3. Computer Supported Cooperative Work (CSCW) (2021, 2022).
- 4. Keck Foundation (2021).
- 5. Computers and Education (Taylor & Francis Journal) (2020).
- 6. Web Audio Conference (2021).
- 7. Routledge textbook reviewer (2018).
- 8. Member of the National Science Foundation College of Reviewers for Undergraduate Education (2018 2021).
- 9. National Science Foundation panel reviewer (2013, 2014, 2018).
- 10. Journal of the Audio Engineering Society (JAES) (2017).
- 11. ACM Special Interest Group on Computer Science Education (SIGCSE) (2016, 2017, 2018).
- 12. Digital Creativity (2017).
- 13. Sound and Music Computing (SMC) (2016).
- 14. Leonardo Music Journal (2016).
- 15. Leonardo (2016).
- 16. International Computer Music Conference (ICMC) (2016).
- 17. Social Sciences and Humanities Research Council of Canada (SSHRC) (2016, 2017).
- 18. ACM Computers in Entertainment (2015).
- 19. MITACS Canada (2014).
- 20. Society of Electro-Acoustic Music in the United States (SEAMUS 2014).
- 21. Journal on Computing and Cultural Heritage (2013).
- 22. Hong Kong Research Grants Council (2010).

- 23. Spark Festival of Electronic Music and Arts (SPARK 2009).
- 24. Chapter reviewer for Introduction to Computer Music by Nick Collins, published by Wiley (2009).
- 25. Computer Human Interaction Conference (ACM CHI 2009, 2015, and 2017).
- 26. Society of Composers National Conference (SCI 2008).
- 27. South Carolina Arts Commission (2008).
- 28. Textbook reviewer for McGraw Hill Higher Education Publishing (2006).
- 29. Computer Music Journal (2005, 2009, 2013, 2017).

Other

- 1. Participant, Alliance for the Arts in Research Universities annual conference (2022), University of Michigan.
- 2. Participant, National Science Foundation CISE Education and Workforce PI meeting (2022), Philadelphia, Pennsylvania.
- 3. Advisory Board Member, Coding in Concert: Designing Collaborative Tools at the Intersection of Music and Code (National Science Foundation supported RETTL project at Northwestern University) (2022 2025).
- 4. Advisor, Design and Making in the Trinidad Carnival, exhibition curated by Vernelle Noel with support from the Graham Foundation (2022).
- 5. Sole member, Drexel University Music Department Program Alignment and Review Committee (2020).
- 6. Advisory Panel member, Flux: Ponce City Market, event for temporary, site-specific sound installations (2019).
- 7. Member, National Science Foundation / CADRE topical group on broadening participation in STEM K-12 education (2018).
- 8. Technical advisor for music, Virtuale Switzerland (2014).
- 9. Participant, 2014 CE21 PI and Community Meeting, Orlando, Florida (2014).
- 10. External thesis examiner for McGill University Department of Music (2012).
- 11. Member of the Classical Music Think Tank, Detroit, Michigan, sponsored by the Association of Performing Arts Presenters (2007).

B. Public and Community Service

Workshops and Other Outreach

- 1. *Judge, Congressional App Challenge, Georgia 4th Congressional District (Congressman Hank Johnson) (2017 and 2022).
- 2. *Guest presenter, Music Technology Community Webinar, Georgia Department of Education Fine Arts (2022).
- 3. *Co-organizer, EarSketch Competition with Pharrell, Alicia Keys, Khalid, Amazon Future Engineer, and Yellow (2020-present). High school students were invited to remix a hit song by Pharrell, learn about its connections to racial justice, music, and coding, and create their own music+coding projects with racial justice messages to win prizes from Georgia Tech and Amazon.
- 4. *Teacher, Learning Sound Synthesis with VCV Rack (2020). Produced and taught a free 6-part video series for high school students on the basics of modular sound synthesis. Over 400 people watched the video series.
- 5. *Co-organized, Coded Beats Summer PEAKS camp (2020). Week-long music+coding virtual summer camp for 40 middle school students offered through CEISMC at Georgia Tech.
- 6. *Guest speaker, GoSTEAM teacher professional development (2020). Spoke to teachers and innovators in residence in CEISMC's GoSTEAM program about musical instrument design.
- 7. *Co-organizer, EarSketch Competition with Common and Amazon Future Engineer (2020). High school students were invited to remix a hit song by Common by writing code and win prizes from Georgia Tech and Amazon.
- 8. *Co-organizer, EarSketch Competition with Ciara and Amazon Future Engineer (2019). High school students were invited to remix a hit song by Ciara by writing code and win prizes from Georgia Tech and Amazon.
- 9. *Judge, HackGT (1000-student hackathon) (2019).
- 10. *EarSketch Workshop, MoogFest, Durham (2017).
- 11. *EarSketch Workshop, Morningside Elementary School Family Science Night, Atlanta (2017).
- 12. *Member, Friends of Music Council at Yale University, New Haven (2017 present).
- 13. *EarSketch Workshop, Walton AP Summer Institute, Marietta (2016).
- 14. *EarSketch Workshop, The Bridge Academy, Atlanta (2016).
- 15. *Panelist, JustCode, Startup Grind, Atlanta (2016).
- 16. *EarSketch Workshop, Instituto Technológico de Monterrey, Mexico City (2015).
- 17. *Panelist, NEX Labs Burning Plan panel on a new branding campaign for Atlanta (2014).

- 18. *Faculty advisor for K-12 teacher through <u>GIFT program</u> to develop new K-12 STEAM curriculum (2014).
- 19. *Teacher training workshop for *EarSketch*, <u>Institute for Computing Education at Georgia Tech</u>, Atlanta, Georgia (2014).
- 20. *Workshop leader for <u>Georgia Tech HOT Days</u> electrical engineering program for high school students (2014).
- 21. *Guest lecture to the Georgia Tech Convers Alumni Network (2014).
- 22. *Teacher training workshop for *EarSketch*, <u>ACM SIGSCE</u> conference, Atlanta, Georgia (2014 and 2015).
- 7. *Summer camp for *EarSketch*, <u>Institute for Computing Education at Georgia Tech</u>, Atlanta, Georgia (annually 2012 2014).
- 8. *Workshop, <u>Igniting the Creative Core: Arts Teaching</u>, <u>Learning</u>, and <u>Assessment in the Age of Accountability: the ArtsAPS 2012 Professional Learning Seminar</u>, Atlanta, Georgia (2012).
- 9. *Worked with AP calculus students at Grady High School on statistical analysis of musical performance data (2011).
- 10. *Workshop, <u>Inter-Society for Electronic Arts (ISEA 2011)</u>, Istanbul, Turkey (2011). Collaborative improvisation on laptops and acoustic instruments using *LOLC*.
- 11. *Workshop, <u>H.O.T. Days</u>, Georgia Institute of Technology, Atlanta, Georgia (2011), teaching *LOLC* to high school students.
- 12. *Workshop, <u>WienerTage KlavierMusik</u>, Universität für Musik und darstellende Kunst, Vienna, Austria (2011). Coached piano students in the performance of my music.
- 13. *Summer Camp, <u>Woodruff Arts Center</u>, Atlanta, Georgia (2010 and 2011). Summer camp for middle-school students organized by Atlanta Public Schools, Georgia Tech, and Woodruff Arts Center in which students used *UrbanRemix* to capture sounds and images and to remix them in performance.
- 14. *Workshop, <u>Glide Memorial Church</u>, San Francisco, California (2010). Day-long workshop to collect and document the sounds of the Tenderloin neighborhood for *UrbanRemix* at the City Centered festival.
- 15. *Roundtable participant, <u>Dekalb Choral Guild Georgia Young Composers Festival</u>, Atlanta, Georgia, to mentor young composers who were competition finalists (2009).
- 16. *Founder and organizer of the Atlanta chapter of <u>Dorkbot</u> (2006 2008). Dorkbot is an international art and technology forum that presents monthly lectures, bringing guest speakers to informally present their work.
- 17. *Visiting artist for lecture and workshop with music students at Coral Reef High School, Miami, Florida (2007).

- 18. *Participating artist for GROK, a CD-ROM and curriculum developed by <u>Rhizome</u> and the <u>New Museum for Contemporary Art</u> in New York, New York to introduce high-school students to new media art. *iTunes Signature Maker* was one of the art works in the project (2006).
- 19. *Composed a mobile-phone ringtone for a fundraising auction by the <u>American Composers</u>

 <u>Orchestra</u> (2006). Other composers who composed ringtones for the auction included Laurie Anderson, Danny Elfman, and Philip Glass.
- 20. *Leader for a series of music workshops for elementary, secondary, and university students at the Hamabada Art Center, Jerusalem, Israel (2006).
- 21. Workshops, Newcomers High School, New York, New York, on *Glimmer*, for the American Composers Orchestra (2005). Supported with funds from Meet the Composer.
- Workshop instructor on Quicktime for Java in Interactive Art at the <u>Transmediale Festival</u>, Berlin, Germany (2004).

C. Institute Contributions

Institute Committees and Task Forces

- 1. Participant, ACC Academic Leaders Network (2023). One of five faculty representing Georgia Tech in this ACC-wide initiative.
- 2. Co-lead, Musical Arts Arts2 Working Group (2022 present).
- 3. Member, Arts Square Advisory Board (2022 present).
- 4. Member, Arts@Tech Strategic Plan Implementation Working Group (2021 2022).
- 5. Member, School of Interactive Computing Chair Search (2021).
- 6. Member, Working Group of Diversity Council on Effects of Covid on Underrepresented Faculty Careers (2021).
- 7. Member, Budget Reform Task Force Working Group on Tuition Allocation and Incentives (2021).
- 8. Member, Champion Innovation Working Group for Georgia Tech Strategic Plan (2020).
- 9. Member, Presidential Investiture Planning Committee (2019).
- 10. Chair, Library Dean Search Committee (2019 2020).
- 11. Member, Georgia Tech Arts Faculty Insight Group (2020 present).
- 12. Member, France-Atlanta Festival Organizing Committee (2019).
- 13. Chair, Georgia Tech Arts Council (2016 2019). As part of my role as chair of this group, I also collaborated with the Office of the Arts to a) organize Georgia Tech's participation in the 2017 ACCelerate festival at the Smithsonian and participate in the event's steering committee; and b) secure funding for and organize the Creative Curricular Initiatives program with support from the Strategic Plan Advisory Group.
- 14. Member, Search Committee, Director for the Office of the Arts (2019).
- 15. Member, Office of the Provost Emerging Leaders Advisory Group (2018-2019).
- 16. Participant, Office of the Provost Emerging Leaders Program (2016 2017).
- 17. Member, Diversity and Inclusion Fellows Review Committee (2016).
- 18. Review panel for MOOC course proposals (2016).
- 19. Member, Women's Resource Center Advisory Board (2015 present).
- 20. Chair of the Faculty Benefits Committee (2013 2016).
- 21. Member of the Faculty Benefits Committee (2012 2018).

- 22. GT FIRE (Funding Innovation in Research and Education) Reviewer (2015, 2016).
- 23. Member of the Honors Program Task Force (2013 2014).
- 24. Member of the X-College Task Force (2010 2013).

Interdisciplinary Research Initiatives

- 1. Member, Center for 21st Century Universities (2012 present).
- 2. Member, GVU Center at Georgia Tech (2005 present).
- 3. Member, GVU Center Steering Committee (2009 2011), later rebranded as the GVU Faculty Council (2017 2018).
- 4. Member, Center for Music Technology at Georgia Tech (2008 present).
- 5. Member, Creativity, Cognition, and Computation initiative at Georgia Tech (2010 2011).
- 6. Member, Responsive Objects, Surfaces, and Spaces (ROSS) at Georgia Tech (2007 2009).
- 7. Member, Digital Performance Initiative at Georgia Tech (2008 2009).

College Committees and Task Forces

- 1. Chair, Search Committee for new chair of the School of Industrial Design (2020 2021).
- 2. Member of the Curriculum Committee (2008 2010 and 2015 2018).
- 3. Member of the Review, Promotion, and Tenure Committee (2014 2015).
- 4. Member of the Creativity and the Arts Task Force (2013 2014).
- 5. Member of IT Committee (2011 2013).
- 6. Member of the Advisory Committee (2005 2008).
- 7. Member of the Publications and Outreach Task Force (2007 2008).

School Committees and Service

- 1. Chair, Search Committee for a new music technology professor (2016).
- 2. Member, Women in Music Tech (2016 2018).
- 3. Member of the Search Committee for a new music technology professor (2012).
- 4. Member of the Search Committee for a new choral professor (2011).
- 5. Judge for the Guthman Musical Instrument Competition (2011).
- 6. Member of the Search Committee for new ensemble directors (2010).
- 7. Member of the Guthman Musical Instrument Competition Committee (2008 present).
- 8. Founding Executive Director of <u>Sonic Generator</u>, the professional contemporary ensemble in residence at Georgia Tech (2006 2016).
- 9. Member of the Music Technology Graduate Program Committee (2006 2018).