

## JASON FREEMAN

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### Education

D.M.A.	2005	Columbia University Major: Composition
M.A.	2001	Columbia University Major: Composition
B. A.	1999	Yale University Major: Music summa cum laude

### Professional Employment

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

### Funding

<u>Sponsor</u>	<u>Role</u>	<u>Dates</u>	<u>Amount</u>
National Science Foundation, AISL	co-PI	2016	\$2,512,522
Google Fund of Tides Foundation	PI	2016	\$34,000
Arthur M. Blank Family Foundation	PI	2016	\$65,000
Dolby	PI	2015-2016	\$3000
French-American Fund for Contemporary Music	PI	2015	\$5000
National Science Foundation, IUSE	PI	2015-2017	\$250,000
National Science Foundation, DRK-12	PI	2014-2018	\$2,969,084
Scott Hudgens Family Foundation	PI	2013-2014	\$25,000
French-American Fund for Contemporary Music	PI	2013-2014	\$12,000
Aaron Copland Fund for Music	PI	2011-2012	\$2000
Flux Projects	Co-PI	2012	\$5000
National Science Foundation , CE21	Co-PI	2011-2014	\$999,706
French-American Fund for Contemporary Music	Co-PI	2012	\$5000
Race to the Top	Advisor	2011-2014	\$385,426
Aaron Copland Fund for Music	PI	2010-2011	\$2000
Google Faculty Research Award	PI	2010-2011	\$20,000
French-American Fund for Contemporary Music	PI	2010	\$7500
National Science Foundation , CreativeIT	Co-PI	2009-2013	\$762,372

## Major Commissions

<u>Sponsor</u>	<u>Dates</u>	<u>Work</u>
Turbulence / NEA	2014	Grow Old, net-based sound art
Wesleyan Center for the Arts	2012	MTRX for laptop orchestra
Art on the Beltline	2010	UrbanRemix, locative media project
Yvar Mikhashoff Trust	2008	Piano Etudes for piano and the web
iSAW	2008	Sound Microscope, software art
Adrienne Arsht Center	2007	Flock for saxophone quartet & audience participation
Turbulence / Greenwall	2006	Graph Theory for violin and the web
Rhizome / New Museum	2005	iTunes Signature Maker, software art
American Composers Orchestra	2004	Glimmer, for chamber orchestra and audience participation
Turbulence / NEA	2003	N.A.G., software art

## Publications

### i. Published Book Chapters and Musical Scores

1. Freeman, J. (2015) "Listening, Movement, Creativity, and Technology," in S. Mass and K. Wurth (eds.), Liminal Auralities. New York, New York: Fordham University Press.
2. Freeman, J. (2010). "Reading a Poem," in K2010. Vienna, Austria: Universal Edition.
3. 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://freeman.networkedbook.org/>.

### ii. Published Journal Papers (Refereed)

1. 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 ACM Transactions on Computing Education, 16:4, 14.1-14.25.
2. Freeman, J. and Magerko, B. (2016). "Iterative Composition, Coding, and Pedagogy: A Case Study in Live Coding With EarSketch," in Journal of Technology, Music, and Education, Intellect, 9:1, 57-74.
3. 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 Digital Creativity, Taylor and Francis, 26:3-4, 228-244.
4. Lee, S., and Freeman, J. (2013). "Real-time Music Notation in Mixed Laptop-Acoustic Ensembles," in Computer Music Journal, MIT Press, 17:4, 24-36.
5. 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, pp. 146-160.
6. 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, pp. 30-42.
7. Freeman, J., DiSalvo, C., Nitsche, M., and Garrett, S. (2012). "Rediscovering the City with UrbanRemix," in Leonardo, MIT Press, 45:5, pp. 478-479.

8. Freeman, J. (2011). "Artist Statement: Bringing Instrumental Musicians Into Interactive Music Systems Through Notation," in Leonardo Music Journal, MIT Press, 21, pp. 15-16.
9. Freeman, J., DiSalvo, C., Nitsche, M., and Garrett, S. (2011). "Soundscape Composition and Field Recording as a Platform for Collaborative Creativity," in Organised Sound, Cambridge University Press, 16:3, pp. 272-281.
10. Freeman, J. and Van Troyer, A. (2011). "Collaborative Textual Improvisation in a Laptop Ensemble," in Computer Music Journal, MIT Press, 35:2, pp. 8-21.
11. Freeman, J. (2010). "Web-based Collaboration, Live Musical Performance and Open-Form Scores," in International Journal of Performance Arts and Digital Media, Intellect, 6:2, pp. 149-170.
12. Freeman, J. and Colella, A. (2010). "Tools for Real-Time Notation," in Contemporary Music Review, Routledge, 29:1, pp. 101-113.
13. Freeman, J. and Godfrey, M. (2010). "Creative collaboration between audiences and musicians in *Flock*," in Digital Creativity, Routledge, 21:2, pp. 85-99.
14. Freeman, J. (2008). "Thoughts Around Terry Riley's *Chanting the Light of Foresight*," in Open Space, 10, pp. 143-149.
15. Freeman, J. (2008). "Artist Statement: Collaborative Creation, Live Performance, and *Flock*," in Leonardo Music Journal, MIT Press, 18, pp. 44-45.
16. Freeman, J. (2008). "Extreme Sight-reading, Mediated Expression, and Audience Participation: Real-time Music Notation in Live Performance," in Computer Music Journal, MIT Press, 32:3, pp. 25-41.
17. Freeman, J. (2008). "Glimmer: Creating New Connections," in Transdisciplinary Digital Art: Sound, Vision and the New Screen, Communications in Computer and Information Science, Springer, pp. 270-283.
18. Freeman, J. (2008). "Graph Theory: Linking Online Musical Exploration to Concert Hall Performance," in Leonardo, MIT Press, 41:1, pp. 92-93.
19. Freeman, J. (2007). "Artist Statement: *Glimmer*: Lights, Orchestral Performance, and Audience Participation," in Leonardo Electronic Almanac, 15:11-12. Available at [http://www.leonardo.info/lmj/lmj17supp\\_freeman.html](http://www.leonardo.info/lmj/lmj17supp_freeman.html).
20. 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.
21. Freeman, J., Ramakrishnan, C., Varnik, K., Neuhaus, M., Burk, P., and Birchfield, D. (2005). "*Auracle*: A Voice-Controlled Networked Sound Instrument," in Organised Sound, Cambridge University Press, 10:3, pp. 221-231.

### iii. Conference Proceedings (Refereed)

1. Engelman, S., Magerko, B., McKlin, T., Miller, M., Edwards, D., and Freeman, J. (2017). "Creativity in Authentic STEAM Education with EarSketch," in Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2017), Seattle, Washington (accepted and in press).

2. 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 Proceedings of ACM International Conference on Tangible, Embedded, and Emodied Interactions (TEI 2017), Yokohama, Japan (accepted and in press).
3. Tsuchiya, T., Xambó, A., and Freeman, J. (2016). "Adapting DAW-Driven Musical Language to Live Coding: A Case Study in EarSketch," in Proceedings of the 2016 International Conference on Live Coding (ICLC 2016), Hamilton, Canada.
4. 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.
5. Xambó, A., Lerch, A., and Freeman, J. (2016). "Learning to Code Through MIR," in Proceedings of the 2016 International Society for Music Information Retrieval Conference (ISMIR 2016), New York, New York.
6. 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 Proceedings of Envisioning the Future of Undergraduate STEM Education (EnFUSE 2016), Washington, DC.
7. Freeman, J., Magerko, B., Edwards, D., Miller, M., Moore, R., and Xambó, A. (2016). "Using EarSketch to Broaden Participation in Computing and Music," in Proceedings of Sound and Music Computing (SMC 2016), Hamburg, Germany.
8. Moore, R., Edwards, D., Freeman, J., Magerko, B., McKlin, T., and Xambó, A. (2016) "EarSketch: An Authentic, STEAM-based Approach to Computing Education," in Proceedings of the 2016 American Society for Engineering Education Annual Conference & Expo, New Orleans, Louisiana.
9. Helms, M., Moore, R., Edwards, D., and Freeman, J. (2016). "STEAM-Based Interventions: Why Student Engagement is Only Part of the Story," in IEEE Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2016), Atlanta, Georgia.
10. Xambó, A., Lerch, A., Freeman, J. (2016). "Learning to Code Through MIR," in Proceedings of the 17<sup>th</sup> International Society for Music Information Retrieval Conference (ISMIR 2016), New York, New York.
11. Xambó, A., Freeman, J., Magerko, B., and Shah, P. (2016). "Challenges and New Directions for Collaborative Live Coding in the Classroom," in Proceedings of the 2016 International Conference on Live Interfaces (ICLI 2016), Sussex, England.
12. Mahadevan, A., Freeman, J., and Magerko, B. (2016). "An interactive, graphical coding environment for EarSketch online using Blockly and Web Audio API," in Proceedings of the 2016 Web Audio Conference, Atlanta, Georgia.
13. Martinez, J. and Freeman, J. (2016). "A JavaScript Pitch Shifting Library for EarSketch with Asm.js," in Proceedings of the 2016 Web Audio Conference, Atlanta, Georgia.
14. 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.
15. Winters, M., Tsuchiya, T., Lerner, L., and Freeman, J. (2016). "Multi-Modal Web-Based Dashboards for Geo-Located Real-Time Monitoring," in Proceedings of the 2016 Web Audio Conference, Atlanta, Georgia.

16. Tsuchiya, T., Freeman, J., and Lerner, L. (2015). "Data-to-Music API: Real-time Data-Agnostic Sonification with Musical Structure Models," in Proceedings of the International Conference on Auditory Display, Graz, Austria.
17. 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.
18. 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 Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education, Atlanta, Georgia.
19. Lee, S., and Freeman, J. "echobo: A Mobile Music Instrument Designed for Audience to Play," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2013), Seoul, Korea.
20. Magerko, B., Freeman, J., McKlin, T., McCoid, S., Jenkins, T., and Livingston, E. (2013). "Tackling Engagement in Computing with Computational Music Remixing," in Proceedings of the ACM SIGCSE Technical Symposium on Computer Science Education, Denver, Colorado.
21. Bretan, M., Weinberg, W., and Freeman, J. (2012). "Sonification for the Art Installation Drawn Together," in Proceedings of the International Conference on Auditory Display, Atlanta, Georgia.
22. Subramanian, S., Freeman, J., and McCoid, S. (2012). "LOLbot: Machine Musicianship in Laptop Ensembles," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012), Ann Arbor, Michigan.
23. Lee, S., Srinivasamurthy, A., Tronel, G., Shen, W. (2012). "Tok!: A Collaborative Acoustic Instrument using Mobile Phones," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012), Ann Arbor, Michigan.
24. Lee, S., Freeman, J., and Colella, A. (2012). "Real-Time Music Notation, Collaborative Improvisation, and Laptop Ensembles," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012), Ann Arbor, Michigan.
25. Weitzner, N., Freeman, J., Garrett, S., and Chen, Y. (2012). "massMobile – an Audience Participation Framework," in Proceedings of the New Interfaces for Musical Expression Conference (NIME 2012), Ann Arbor, Michigan.
26. Lee, S., Freeman, J., Colella, A., Yao, S., and Van Troyer, A. (2012). "Evaluating Collaborative Laptop Improvisation With LOLC," in Proceedings of the Symposium on Laptop Ensembles and Orchestras (SLEO 2012), Baton Rouge, Louisiana.
27. Lee, S., Freeman, J., Colella, A., Yao, S., and Van Troyer, A. (2011). "Collaborative Improvisation in a Laptop Ensemble with LOLC," in Proceedings of the 8<sup>th</sup> ACM Creativity and Cognition Conference (CC 2011), Atlanta, Georgia.
28. Freeman, J., Lee, S., Yao, S., and Albin, A. (2011). "LOLC for Laptop Music Ensemble (artist statement)," in Proceedings of the 8<sup>th</sup> ACM Creativity and Cognition Conference (CC 2011), Atlanta, Georgia.
29. DiSalvo, C., Freeman, J., and Nitsche, M. (2011). "Participatory art as inner city workshop: The UrbanRemix sound project," in Proceedings of the Inter-Society for the Electronic Arts (ISEA 2011),

Istanbul, Turkey.

30. Freeman, J., and Godfrey, M. (2008). "Technology, Real-time Notation, and Audience Participation in *Flock*," in Proceedings of the International Computer Music Conference (ICMC 2008), Belfast, United Kingdom.
31. Freeman, J. (2007). "*Graph Theory*: Linking Online Musical Creativity to Concert Hall Performance," in Proceedings of the 6<sup>th</sup> ACM Creativity and Cognition Conference (CC 2007), Washington, DC, pp. 251-252.
32. Freeman, J. (2007). "*Graph Theory*: Interfacing Audiences Into the Composition Process," in Proceedings of the New Interfaces for Music Expression Conference (NIME 2007), New York, New York, pp. 260-263.
33. 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.
34. Freeman, J. (2006). "Summarizing Musical Preferences as Audio Signatures," in Proceedings of the International Computer Music Conference (ICMC 2006), New Orleans, Louisiana, pp. 298-301.
35. Weinberg, G., Freeman, J., Chordia, P., Clark, F., Moore, C., Driscoll, S., and Thatcher, T. (2006). "Georgia Tech Music Technology Group — Studio Report," in Proceedings of the International Computer Music Conference (ICMC 2006), New Orleans, Louisiana, pp. 413-416.
36. Thatcher, T., Jimison, D., Goetzinger, J., Freeman, J., and Weinberg, G. (2006). "Mobile Networked Music Demonstration: Sequencer404," in Proceedings of the International Computer Music Conference (ICMC 2006), New Orleans, Louisiana, p. 544.
37. Freeman, J. (2006). "*Glimmer*: Creating New Connections," in Proceedings of Digital Art Weeks (DAW 2006), Zurich, Switzerland.
38. 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.
39. Freeman, J. (2005). "Large Audience Participation, Technology, and Orchestral Performance," in Proceedings of the International Computer Music Conference (ICMC 2005), Barcelona, Spain, pp. 757-760.
40. 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 Proceedings of the International Computer Music Conference (ICMC 2004), Miami, Florida, pp. 668-671.
41. Freeman, J. (2004). "*N.A.G. (Networked Auralization for Gnutella)*," in Proceedings of ACM Multimedia, New York, New York, pp. 180-181.
42. 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 Proceedings of ACM Multimedia, New York, New York, pp. 528-531.
43. 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 Proceedings of the International Conference on New Interfaces for Musical Expression (NIME 2004), Hammamatsu, Japan,

pp. 100-103.

44. Freeman, J. (2003). “*MetaMix: A Symbiosis of Familiar Content with Generative Form*,” in Proceedings of the 6<sup>th</sup> International Conference on Generative Art, Milan, Italy, pp. 87-91.

#### iv. Published Papers (Invited)

1. Freeman, J. (2014). “Georgia Tech Center for Music Technology,” in The Grove Dictionary of Musical Instruments, Oxford University Press.
2. Freeman, J. (2010). “DIY Scores,” in Symphony: The Magazine of the League of American Orchestras, September/October 2010, pp. 24-26.
3. Freeman, J. (2010, May 24). “Compose Your Own, Part 2,” in Opinionator on the New York Times web site. Available at <http://opinionator.blogs.nytimes.com/2010/05/24/compose-your-own-part-2/>.
4. Freeman, J. (2010, April 22). “Compose Your Own,” in Opinionator on the New York Times web site. Available at <http://opinionator.blogs.nytimes.com/2010/04/22/compose-your-own/>.
5. Freeman, J. (2009, March 4). “Giving Your GWT Application a Voice,” in Google Web Toolkit Blog (official Google developer blog). Available at <http://googlewebtoolkit.blogspot.com/2009/03/giving-your-gwt-application-voice.html>.
6. Freeman, J. (2006). “Composer, Performer, Listener,” in J.P. Hiekel (ed.), Komponieren in der Gegenwart: Texte der 42. Internationalen Ferienkurse für Neue Musik 2004, pp. 125-130. Saarbrücken, Germany: Pfau Verlag.
7. Freeman, J. (2002). “Orchestra Tech National Conference (review),” in Computer Music Journal, MIT Press, 26:2, pp. 91-93.

#### Awards

1. Highlight, White House Fact Sheet on Computer Science for All included information about EarSketch (2016).
2. Participant, Provost’s Emerging Leaders Program at Georgia Tech (2016-2017).
3. Fellow, Hesburgh Award Teaching Fellows at Georgia Tech (2014).
4. Honoree, Webby Awards: Social Media Campaigns, as audio development lead for Coca Cola’s advertising campaign for the 2012 London Olympics.
5. IRCAM awarded me a 2014 Musical Research Residency to compose a new work for piano, electroacoustic sound, and audience participation using technologies developed at IRCAM and my own lab. **4 out of over 50 applicants (~8%) were awarded.**
6. Impact Award, GVU Center at Georgia Tech, in recognition of my contribution to music technology and contemporary music at Georgia Tech on occasion of the center’s 20<sup>th</sup> anniversary.
7. Bronze Prize, Best Integrated Campaign Led by Mobile, Cannes Lions International Festival of Creativity, as audio development lead for Coca Cola’s advertising campaign for the 2012 London Olympics.
8. Citation for Outstanding Leadership and Vision in Arts Education, Office of Fine and Performing Arts, Atlanta Public Schools (2012, May).

9. Best Artwork Award, ACM Creativity & Cognition 2011 (2011, November), for *LOLC*. **1 out of 33 submissions (~3%) received an award.**
10. Second Prize, Mauricio Kagel Composition Competition (2010, February), for *Piano Etudes*. **3 out of 190 entrants (~2%) received awards.**
11. Jury Selection, Bourges International Competition for Electroacoustic Music and Electronic Art (2009, July), in the “New Practices of Net Art” category, for *Piano Etudes*. **89 out of 735 entrants (~12.1%) were honored.**
12. Honorable Mention, Transmediale International Art Festival Award, Berlin, Germany (2002, February), for *Telephone Etude #1: Shakespeare Cuisinart*. **16 out of over 800 entrants (~2%) were honored.**
13. Winner, ASCAP / Morton Gould Young Composer Award (2000, June). **23 out of 406 entrants (~5.7%) were honored.**
14. Winner, Yale University Louis Sudler Prize (1999, May).

### Compositions, Performances, and Exhibitions

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.
  - i. 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 Virtuelle Switzerland.
- i. Digital Art Weeks (exhibition and performance), Seoul, South Korea (2014).
  - ii. Virtuelle 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. Georgia Tech Laptop Orchestra, Goat Farm Arts Center, Atlanta, Georgia (2014).
  - ii. 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.
- 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.
- 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.
- 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. MICE, ZeroSpace Conference, University of Virginia, Charlottesville, Virginia (2013).
  - ii. ACM Creativity and Cognition conference, High Museum of Art, Atlanta, Georgia (2011).
  - iii. Sonic Generator, Woodruff Arts Center, Atlanta, Georgia (2011).
  - iv. 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.**
  - v. FutureFest, Georgia Tech, Atlanta, Georgia (2010).
  - vi. Listening Machines, Eyedrum, Atlanta, Georgia (2010).
  - vii. Princeton Laptop Orchestra, Princeton University, Princeton, New Jersey (2010).
17. *UrbanRemix* (2010), locative media project. With Carl DiSalvo, Michael Nitsche, and several students.
- i. Middletown Remixed (festival with over a dozen installations, performances, and art works created with UrbanRemix), Middletown, Connecticut (2013).
  - ii. VIVO arte.mov Festival (workshop), Belo Horizonte, Brazil (2012).
  - iii. Jade Simmons (performance), Ferst Center for the Arts, Atlanta, Georgia (2012).
  - iv. 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.
  - v. American Composers Orchestra Sonic Festival (performance), Roulette, New York, New York (2011). With exclusiveOr.
  - vi. Radio Milwaukee (online and on-air presentations), Milwaukee, Wisconsin (2011).
  - vii. City Centered Festival (performance and workshop), San Francisco, California (2010). With Ken Ueno.
  - viii. 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).
20. *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. Donaueschinger Musiktage (exhibition), Donaueschingen, 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. Sonic Generator (performance), Woodruff Arts Center, Atlanta, Georgia (2011).
  - ii. New York Young Musicians' Forum (performance), New York, New York (2005).
  - iii. 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 20<sup>th</sup> 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 Vanoosthuysse, 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).

### **Selected Lectures, Presentations, and Workshops**

<u>Location</u>	<u>Date</u>
University of Huddersfield	2016
Goldsmiths University of London	2016
University of Surrey	2016
New York University	2016
A3C Hip Hop Festival	2016
Louisiana State University	2016
Emory University	2016
University of Colorado at Boulder	2016
Jean-Monnet University (Saint-Etienne, France)	2015
Technológico de Monterrey (Mexico City)	2015
University of Missouri, Kansas City	2015
Atlanta Association for Talent Development (keynote)	2015
Yale University	2013
Athens Slingshot	2013
TedX Georgia Tech	2012
Atlanta Public Schools (system-wide workshop)	2012
Wesleyan University	2012
ISEA (panel chair, workshop leader) (Istanbul)	2011
Museum of Design (Atlanta)	2011
Universität für Musik und Darstellende Kunst (Vienna)	2011
University of Miami	2010
Music in the Global Village (Budapest)	2010
Arizona State University	2009
Google	2009
Association of Performing Arts Presenters (New York)	2009
Interdisciplinary Sound Arts Workshop (Miami)	2008
University of Georgia	2008
Florida International University	2007
Upgrade International Festival	2006

RWTH Aachen	2006
Stanford University	2006
University of California, Berkeley	2006
University of California, Santa Cruz	2006
University of Virginia	2005
Darmstadt Internationale Ferienkurse für Neue Musik	2004
University of Florida	2001
Orchestra Tech National Conference (New York)	2001

### **Key Press Coverage**

<u>Source</u>	<u>Date</u>
WABE (Public Radio Atlanta)	2016
Vice (China)	2015
La Semaine (Metz, France)	2014
The New York Times	2014
Scientific American	2013
Opera News	2013
Creative Loafing (Best of Atlanta issue)	2013
Forbes.com	2013
The Hartford Courant	2013
CNN Radio	2013
CS Bits & Bytes (National Science Foundation)	2013
ArtsAtl.com (best of year in classical music)	2011, 2012, 2013
WNPR (Connecticut Public Radio)	2012, 2013
USA Today	2012, 2001
Creative Loafing (Best of Atlanta issue)	2011, 2013
ABC Radio (Australia national radio)	2010
Performance Today (Public Radio International)	2010
Creative Loafing (8 Artists to Watch)	2010
The Atlantian (15 Atlanta Art Mavericks)	2010
Furtherfield	2009
NewMusicBox	2009, 2003
The Chronicle of Higher Education	2009
Atlanta Magazine (Best of Atlanta issue)	2009
Atlanta Journal-Constitution (best of year in classical music)	2009, 2013
Art Papers	2008
San Jose Mercury News	2008
The Associated Press	2008
Rhizome News	2008, 2005
Wired	2007
Bloomberg	2006
Marketplace (Public Radio International)	2005
The New York Times	2005, 2003, 2001, 2000
SWR AudioHyperSpace	2003
Billboard	2003
All Things Considered (National Public Radio)	2003, 2001

### **Consulting**

1. Consultant for ZooZ Mobile on an interactive music smartphone app (2012, April – September).
2. Consultant for Movement, Ltd and ZooZ Mobile on a major advertising campaign for the Coca-Cola

Company for the 2012 London Olympics (2011, August – 2012, April). I was 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.

- Expert witness for Alston and Bird, LLP in *Gibson v. Activision*, patent litigation concerning the *Guitar Hero* video game franchise (2009, January – February).

### Conference Organization

<u>Activity</u>	<u>Role</u>	<u>Date</u>
WAC (Web Audio Conference)	Chair	2016
ICMC (Computer Music)	Jury Head, laptop works	2013
ICAD (Auditory Display)	Music Chair	2012
CHI (Computer Human Interaction)	Media Showcase Chair	2010
Music in the Global Village	Co-organizer	2010

### Other External Service

<u>Activity</u>	<u>Role</u>	<u>Date</u>
Leonardo Music Journal	reviewer	2016
Leonardo	reviewer	2016
SMC	meta-reviewer	2016
RESPECT	Program Committee	2016
SSHRC	reviewer	2016
TENOR	Program Committee	2016, 2017
ACM SIGCSE	reviewer	2016, 2017
MITACS Canada	reviewer	2014
ACM CHI	reviewer	2009, 2015, 2017
Inter. Symp. on Electronic Art	Program Committee	2015
Web Audio Conference	Program Committee	2015
SEAMUS	research paper adjudicator	2014
National Science Foundation	panel reviewer	2013, 2014
Journal on Computing and Cult. Her.	reviewer	2013
ACM Multimedia	Program Committee	2013, 2014
McGill University	Thesis Reviewer	2012
New Media and Society	reviewer	2012
Austrian Science Fund	reviewer	2012, 2013
MUME	Program Committee	2012, 2013, 2014
Contemporary Music Review	Guest Editor	2010
Hong Kong Research Council	reviewer	2010
Spark Festival	reviewer	2009
Wiley	textbook reviewer	2009
ACM C&C	Program Committee	2009, 2011, 2013, 2017
SCI National Conference	reviewer	2008
Arts Presenters Classical Think Tank	think tank member	2007
McGraw Hill	textbook reviewer	2007
ICMC	reviewer	2006-2012, 2016
NIME	reviewer	2006-2012, 2014-2016
Computer Music Journal	reviewer	2005, 2009, 2013

## University Service

<u>Activity</u>	<u>Role</u>	<u>Date</u>
Provost's Emerging Leaders Pgm.	participant	2016-2017
Music Tech. Faculty Search	chair	2016
Faculty Arts Council	chair	2016-present
Diversity and Inclusion Fellows Review	member	2016
Women in Music Tech	member	2016
Sonic Generator (chamber ensemble)	executive director	2006-present
Women's Resource Center Adv. Bd.	member	2015-present
GT Center for Music Technology	interim director	2013-2014
Music Technology Graduate Programs	interim director	2013-2014
Honors Program Task Force	member	2013-2014
Creativity and the Arts Task Force	member	2013
BS in Music Technology Proposal	contributor	2013-2015
Music Technology Faculty Search	member	2012
Faculty Benefits Committee	chair	2013-2016
Faculty Benefits Committee	member	2012-present
Architecture IT Committee	member	2011-2013
Vocal Faculty Search	member	2011
Guthman Musical Instrument Comp.	judge	2011
X-College Task Force	member	2010-2013
Jazz and Orchestra Faculty Searches	member	2010
GVU Center Steering Committee	member	2009-2011
PhD in Music Technology Proposal	lead author	2009
Architecture Curriculum Committee	member	2008-2010, 2016-present
Architecture Advisory Committee	member	2005-2008

## Courses Taught

At Georgia Tech, I have taught five courses for our MS program in music technology; three of them I designed and taught for the first time at the university:

- **Music Technology: History and Repertoire** is a thematic, non-chronological survey of electronic and computer music, exploring the symbiotic relationship between technological developments and artistic practice. Taught in the style of a humanities seminar, the course develops students' abilities to listen critically to electronic music, to present analyses of music in written, oral, and graphical formats, and to write a research paper.
- **Interactive Music** is a project-based course in which students develop novel music-making interfaces and intelligent machine musicians. As they learn about the musical, technical, and design challenges involved in constructing such systems and the rich history of practice in the field, they develop, share, and perform with unique musical artifacts that challenge them to push the boundaries of musical expression and expand their own skills.
- **Computer Music Composition** gives students experience composing fixed-media works through the manipulation and mixing of samples in commercial digital audio workstation software and through algorithmic composition in languages such as ChucK, SuperCollider, and Max/MSP, and it provides opportunities for critical analysis and discussion of recent works across a range of musical styles. The course culminates in the release of an album featuring student works.
- **Network Music** is a collaborative, project-based course in which teams of students create large-scale software projects over the course of the semester, acquiring key technical, design, theoretical, and

leadership skills directly transferable to industry work. Each year, the course focuses on a different theme within the broad field of network music; recent themes have included collaborative mobile phone applications, locative sound, and multiplayer music-based gaming. Past course projects have led to conference papers, performances, and press coverage.

- **Project Studio in Music Technology** is a collaborative, project-based course focused on the combination of traditional and technological instruments in a culminating end-of-semester public performance. I taught the course as a laptop orchestra and performed repertoire works along with music created by student groups specifically for the performance.

I also designed, led, and co-taught **Musical Architecture**, an interdisciplinary special-topics course involving students and faculty from music technology, industrial design, human-computer interaction, and architecture, in collaboration with artists-in-residence New Orleans Airlift, in spring 2014.

I have also regularly taught **Survey of Music Technology**, an undergraduate non-major course that provides a broad overview of the field of computer music as both an artistic pursuit and research practice. It covers acoustics, psychoacoustics, digital sound, multi-track audio and MIDI editing, spectral analysis and resynthesis, synthesis and digital signal processing, algorithmic composition, and sound design. I have also offered this as a massive open online course (MOOC) on Coursera, with over 40,000 students enrolled in two cohort-based offerings in 2013 and 2014 and an on-demand offering launched in 2015.

As a doctoral student at Columbia, I served as course instructor for **Music Humanities**, a survey course in music history for non-majors, and as a teaching assistant for **Diatonic Theory** and for **Basic Electroacoustics** and **Interactive Music** courses designed for composers.

### **Student Advising**

At Georgia Tech, I have advised 36 MS students, 2 PhD students, 1 postdoc, and 2 visiting scholars in music technology, served on thesis and project committees for 13 additional MS students from music, digital media, and human-computer interaction, and supervised research for 10 undergraduates.