

BRIAN A. MILLER
Curriculum Vitae

Ypsilanti, MI

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EDUCATION

Yale University

Ph.D. in Music | Theory concentration 2020
Dissertation: “Enminded, Embodied, Embedded: The Concept of Musical
Style from Leonard Meyer to Machine Learning”
Advisor: Brian Kane

M.Phil. in Music Theory 2017
M.A. in Music Theory 2016

University of Kansas

M.M. in Music Theory 2014
Thesis: “Exploring Tonal Substitutions in Schubert’s Late Sonata Forms”
Advisor: Scott Murphy

B.S. in Computer Engineering 2011

PROFESSIONAL APPOINTMENTS

Lecturer, Program in Computing for the Arts and Sciences, University of Michigan 2023–
General Programmer/Analyst, University of Michigan Institute for Social Research 2021–2023
Lecturer, Department of Music, Yale University 2020–2021

PUBLICATIONS

“Language, Gesture, Style: Adorno’s Theory of Musical Reproduction between
Musicology and Art History.” In *Dialektik der Schrift. Zu Adornos Theorie der
musikalischen Reproduktion*, Julia Freund, Matteo Nanni, Jakob M. Schermann, and
Nikolaus Urbanek, eds. Wilhelm Fink-Verlag. 2022

“Digital Scores, Algorithmic Agents, Encoded Ontologies: On the objects of musical
computation.” In *Material Cultures of Music Notation: New Perspectives on Musical
Inscription*. Floris Schuiling and Emily Payne, eds. Routledge. 2022

- “Leonard Meyer’s Theory of Musical Style, from Pragmatism to Information Theory.” *Resonance* 2.4, special series on music and cybernetics edited by Eric Drott and Christopher Haworth. 2021
- “All of the rules of jazz’: Stylistic Models and Algorithmic Creativity in Human-Computer Improvisation.” *Music Theory Online* 26.3 (September 2020). 2020
- “Rethinking Replication in Leonard Meyer’s Theory of Musical Style.” In *The Oxford Handbook of Music and Corpus Studies*. Edited by Daniel Shanahan, Ashley Burgoyne, and Ian Quinn. NY: Oxford University Press. forthcoming

PRESENTATIONS

- The Future of Musical Knowledge in the Age of Machine Learning, workshop participant. Center for Interdisciplinary Research, University of Bielefeld, Germany 2023
- “Leonard Meyer’s Theory of Musical Style, from Pragmatism to Information Theory.” Special session on Music and Cybernetics, American Musicological Society Annual Meeting. Online due to COVID-19 2021
- “Open Source Creativity: Google as Computer Music Institution.” Society for American Music Annual Conference. Tacoma, WA (online due to COVID-19) 2021
- “The Puzzle of Style: On Leonard Meyer’s Unlikely Replications.” Society for Music Theory National Conference. Columbus, OH 2019
- “From Pragmatism to Information Theory: Leonard Meyer, Musical Style, and the Origins of Corpus Studies.” Recursions: Music and Cybernetics in Historical Perspective. Edinburgh, UK 2019
- “Language, Gesture, Style: Adorno’s Theory of Musical Reproduction between Musicology and Art History.” Music, Writing, Difference: An Interdisciplinary Conference on Adorno’s Theory of Musical Reproduction. Vienna, Austria 2019
- “Jazz, but with Robots: Style and Aesthetics in Human-Computer Improvisation.” Society for American Music Annual Conference. New Orleans, LA (*winner of the Mark Tucker Award for outstanding student paper*) 2019
- “Algorithmic Agents, Musical Objects, and Mediated Styles: Reframing Computational Music Theory.” Society for Music Theory National Conference. San Antonio, TX 2018
- “On the Turing Test and the Entailments of Style: Jazz Robots, Metapragmatics, and Improvisation.” Midwest Music Research Collective Fall Conference. Lawrence, KS 2018

“Algorithmic Agents, Encoded Ontologies, and Digital Corpora: On the Objects of Computational Music Theory.” Material Cultures of Music Notation: An Interdisciplinary Conference. Utrecht, Netherlands	2018
“Meter and Continuity in Stravinsky’s <i>Symphonies of Wind Instruments</i> .” Buffalo Graduate Music Symposium. Buffalo, NY	2015
“Coding Schenker: Case Studies in Cadence Detection” (poster). Fourth International Conference on Mathematics and Computation in Music. Montreal, QC	2013
“Coding Schenker: Case Studies in Cadence Detection” (paper). Midwestern Music Cognition Symposium. Columbus, OH	2013

TEACHING

Yale University

As primary instructor:

<u>MUSI 210 & 211 – Studies in Analysis and Composition I & II</u> Tonal music theory sequence covering harmony, part-writing, form, model composition	2016–2017
<u>MUSI 218 – Elementary Musicianship I</u> First-semester aural skills and keyboard lab	2017
<u>MUSI 110 – Introduction to the Elements of Music</u> Notation, rhythm, scales, keys, melodies, and chords, including writing, analysis, singing, and dictation. Popular and Western art music	2019
<u>MUSI 172 – Music in Words: Controversy, Critique, Invective</u> A writing seminar examining controversies over questions of musical authenticity and identity in popular music, Western art music, and jazz.	2020

As teaching fellow and/or lab instructor:

<u>MUSI 450 – Music and Multimedia</u> Focusing on Max/MSP and related technologies	2018
<u>MUSI 100 – Melody, Rhythm, and Notation in Global Context</u> Develops skills in singing, hearing, and writing music through repertory-based case studies of improvised and written melody in global ritual song traditions	2020

University of Kansas

MEMT 116 <i>primary instructor</i> Introduction to music technology, covering production software (iMovie, GarageBand), notation software, and basic web design	2012–2014
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COLLABORATIONS AND RESEARCH PROJECTS

“Black Sound, Improvisation, and Computer Music.”	2018
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An ongoing digital archive for Yale's Black Sound and the Archive Working Group. <https://campuspress.yale.edu/bsaw/bsaw-exhibition-start-here/black-sound-improvisation-and-computer-music-brian-miller/>

- The Lost Voices Project | <http://digitalduchemin.org> 2015
Coding and data management for similarity network visualizations, comparing cadences in a book of 16th-century polyphonic songs.
- Duet-on-Pitch: Dual pitch-tracking technology 2010–2014
The University of Kansas Information and Telecommunication Technology Center
Programming support (Java, Objective C), iPhone app development, musical arrangements and encoding. Supervised by Prof. David Petr.

HONORS AND AWARDS

- Finalist, Society for Music Theory Emerging Scholar Award (article) - “All of the rules of jazz” in *MTO* 26.3 2021
- Society for American Music, Mark Tucker Award for outstanding student paper 2019
- Whitney and Betty MacMillan Center for International and Area Studies at Yale Conference Travel Grant (x2) 2019
- Yale Graduate School of Arts and Sciences Conference Travel Fellowship (x3) 2018, 2019
- Andrew W. Mellon Foundation Summer Writing-in-Residence Dissertation Working Group and professional development grant, Yale University 2018
- M.M. Oral Exam passed with distinction, University of Kansas 2014
- Rummer Design Award for best undergraduate senior design project in computer engineering, University of Kansas 2011

MEMBERSHIPS, SERVICE, OTHER POSITIONS

- Sound and Technology Working Group, Consortium for the History of Science, Technology, and Medicine | *co-convener* 2021–present
- Peer reviewer for *Music Theory Online* 2021–present
- Society for Music Theory Professional Development Committee | *member* 2019–2022
- Yale Office of Career Strategy, Graduate Professional Development Program Manager 2021

Yale University Graduate School Alumni Fellow	2020–2021
Yale Sound Studies Working Group <i>co-convener</i>	2016–2020
Yale Black Sound and the Archive Working Group <i>participant</i>	2017–2019
Fundamentals of Teaching Music workshop, Yale Center for Teaching and Learning <i>participant</i>	2017
Yale Department of Music Professional Development Committee	2016–2017
Yale Department of Music Guest Lecture Committee	2017–2020
Yale Graduate Music Symposium <i>Program Committee, Website and program design</i>	2018
Yale Graduate Music Symposium <i>Session Chair and Program Committee</i>	2016

OTHER SKILLS

Languages

- French: reading knowledge and basic proficiency
- German: reading knowledge

Computer programming and data science

Significant experience with Python (including music21, tensorflow, pandas), Stata, C/C++, Javascript, Max/MSP, and various other languages.

REFERENCES

Brian Kane (Associate Professor of Music, Yale University)
brian.kane@yale.edu

Ian Quinn (Professor of Music, Yale University)
ian.quinn@yale.edu

Gary Tomlinson (Sterling Professor of Music & the Humanities, Yale University)
gary.tomlinson@yale.edu

Eric Drott (Associate Professor of Theory, University of Texas at Austin)
drott@utexas.edu