

Jack Atherton

Curriculum Vitae

Ph.D. Candidate

Center for Computer Research in Music and Acoustics (CCRMA)

Department of Music

Stanford University

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<http://www.jack-atherton.com>

RESEARCH INTERESTS

Art of design for computer music; Human flourishing; Design for subjective wellbeing; Programming languages and interactive software design for computer music; Human-computer interaction design; Audiovisual design; Design for virtual reality; Computer-mediated performance & ensembles: laptop orchestra; Sound synthesis and analysis; Expressive musical game design; Aesthetics of music technology design; Interactive machine learning; Education at intersection of arts, engineering, and design.

EDUCATION

Degree	Institution	Date	Field
Ph.D.	Stanford University	Expected 2022	Computer-Based Music Theory and Acoustics
M.A.	Stanford University	2017	Music, Science, and Technology
B.A.	University of California, Berkeley	2015	Computer Science

CONFERENCE PUBLICATIONS

Atherton, J. and Wang, G. 2018. "Chunity: Integrated Audiovisual Programming in Unity." *New Interfaces for Musical Expression*. Blacksburg, Virginia.

Atherton, J. and Blikstein, P. 2017. "Sonification Blocks: A Block-Based Programming Environment for Embodied Data Sonification." *Interaction Design and Children*. Stanford, California.

Atherton, J. and Kaneshiro, B. 2016. "I Said It First: Topological Analysis of Lyrical Influence Networks." *International Society for Music Information Retrieval*. New York, New York.

OTHER CONFERENCE PRESENTATIONS

- Atherton, J. and Wang, G. 2018. “Chunity for Audio-first VR.” Audio-first VR Workshop: Imagining the Future of Virtual Environments for Musical Expression, at *New Interfaces for Musical Expression*. Blacksburg, Virginia.
- Atherton, J. and Fujioka, T. 2017. “Compositional Purpose of Music for Background Listening: An Unexplored Dimension of the Effects on Cognitive Task Performance.” *Society for Music Perception and Cognition*. San Diego, California.

AWARDS

- NSF Graduate Research Fellowship Recipient
UC Berkeley Computer Science Departmental Citation

TEACHING EXPERIENCE

Teaching Assistant – Stanford University – 2017-2019

- Stanford Laptop Orchestra: Composition, Coding, and Performance* (for Ge Wang). Spring 2019.
- Interaction - Intermedia - Immersion* (for Patricia Alessandrini). Winter 2019.
- Music, Computing, Design I: The Art of Design* (for Ge Wang). Fall 2018.
- Research Seminar in Computer-Generated Music* (for Chris Chafe). Spring 2018.
- Elements of Music I* (for Erik Ulman). Winter 2018.
- Music, Computing, Design I: Art of Design for Computer Music* (for Ge Wang). Fall 2017.

WORK EXPERIENCE

- 2015–Present. Graduate Student and Research Assistant. Stanford University. Department of Music. Full-time research; teaching.
- 2016 Summer. Research & Development Intern. Shazam. Created a suite of algorithms for generating playlists based on musical similarity and social data.
- 2014 Summer. Software Engineer Intern. Twilio. Architected and built two full-stack video conferencing web apps using custom SIP signaling and presence service.
- 2013 Summer. Software Engineer Intern. Facebook. Redesigned, rewrote, and maintained the video encoder as the sole video encoding engineer.