

# James P. Keary

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Portfolio at [www.jameskeary.com](http://www.jameskeary.com)

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## EDUCATION

**New York University, Steinhardt, Masters in Music Technology**, Dec 2013, GPA 3.43

*Coursework:* Digital Audio Processing, Digital Signal Theory, Audio Codec Design, Electronics by Computer Simulation, 3D Audio, Advanced Musical Acoustics, Advanced Audio Production, C Programming, Java Music Systems

**Oberlin College**, Oberlin, OH, *Bachelor of Arts*, 2006

## EMPLOYMENT

**Graduate Research Assistant, NYU Steinhardt, Medical Imaging Sonification Project**, 2013 - Current

- Devised and prototyped different sonification methods based on research in the medical and sonification fields. Programmed algorithms that generated audio from these large 3D data sets.
- Developed and designed interactive audio software with graphical user interface to sonify large brain scan data sets received from NYU Langone Medical Center's Positron Emission Tomography (PET) scanners.
- Prepared, managed and enacted testing on audio experts and doctors to understand if or sonification methods aided doctors in the diagnosis of Alzheimer's dementia.

**Live Sound Engineer, Complete Music Studios, Brooklyn, NY**, 2010 – 2011

- Shaped and mixed live sound, operated complex sound reinforcement systems for rehearsals of Top 40 and critically acclaimed performing artists.

**The New-York Historical Society, Museum Education Department**, 2006 – 2010

**School Programs Associate**, 2007 - 2010

- Maintained online database, calendar and booking system for all school tours, teacher workshops, and education events. Designed updates and expanded this multifaceted computer system. Provided training and technical support to all system users: teachers, educators, and staff members.
- Managed department's College and High School interns.

**Floor Manager and School Group Educator**, 2006 – 2007

- Supervised the scheduling and training of educators. Acted as department liaison to public groups.
- Developed and led student tours and programs for critically acclaimed exhibitions; *New York Divided* (2006-07), *Grant and Lee in War and Peace* (2008-09), and *Lincoln in New York* (2009-10).

## TECHNICAL SKILLS

- **Programming Languages:** Java, C, MATLAB, HTML, CSS, JavaScript, Csound, SuperCollider, Pure Data, Unreal Script
- **Software Tools, APIs and Protocols:** Xcode, Git, Unix Shell, Eclipse, JQuery, Bootstrap API, JSyn API, JMSL API, Web Audio API, MIDI, OSC and Internet Protocols
- **Audio Hardware:** Yamaha, SSL, API mixing consoles, outboard gear, patch bays, sound reinforcement systems, modular synthesizers
- **Audio and Video Software:** Logic Pro, Ableton Live, Pro Tools, Audacity, Reaper, FMod, Finale, Sibelius, Unreal Development Kit, Final Cut Studio

## PUBLICATIONS AND CONFERENCE PRESENTATIONS

- *Sonification Method To Enhance the Diagnosis of Dementia*, A. Roginska, H. Mohanraj, J. Keary, and K. Friedman, International Conference on Auditory Display (ICAD) 2014, NY, NY, June 2014. Publication and Conference Presentation.
- *A New Technique for Capturing True Coincidence in Ambisonic Microphone Arrays*, Masters Thesis, New York University Steinhardt, NY, NY, January 2014.

*References available upon request*