

Josiah Wolf Oberholtzer

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Education

Ph.D. & M.A., Music, Harvard University, 2015
Max/MSP Object Programming, CNMAT, U.C. Berkeley, 2009
Schloss Solitude Summer Academy, Stuttgart, 2007
B.Mus., Oberlin Conservatory of Music, 2006

Employment

Research Technical Assistant, MIT Music and Theater Arts Department, 2013-2014
Research Assistant, Computer-assisted composition, Hans Tutschku, 2011-2012
Teaching Assistant, Harvard University, 2010-2014
Programmer, Forced Exposure, 2006-2008

Fields of Interest

Formalized score control
Electro-acoustic music composition and performance
Multi-media and live-electronics programming
Audio analysis and music informatics
Open source software development

Technical Skills

Languages: Python (6 years), C, Java, HTML & Javascript, Max/MSP, SuperCollider
Development Tools: Unix command line environment, git & svn, vim, LaTeX, Travis-CI, VirtualBox
Python-specific Tools: mongoengine, numpy, ply, pyramid, pytest, sphinx, sqlalchemy, tox, virtualenv
Audio Tools: Ableton, AudioSculpt, Nuendo, ProTools, Reaper, iZotopeRX

Open-Source Software Development

Abjad, Co-Author, 2009-
A Python API for Formalized Score Control
Contributions include LilyPond syntax parsing, musical microlanguages, documentation tools, large-scale form control, rhythmic quantization
Documentation: <http://projectabjad.org>

- Source:* <https://github.com/Abjad/abjad>
- Supriya*, Author, 2013-
A Python interface to SuperCollider
Documentation: <http://supriya.readthedocs.org/en/latest/>
Source: <https://github.com/Pulgama/supriya>
- Consort*, Author, 2013-
High level tools for formalized score control
Source: <https://github.com/josiah-wolf-oberholtzer/consort>
- SASHA*, Author, 2012-
A collection of tools for categorizing and searching saxophone multiphonics by spectral and idiomatic descriptors
Demo: <http://sasha.mbrsi.org>
Source: <https://github.com/josiah-wolf-oberholtzer/sasha>
- Music21*, Lead Programmer, 2013-2014
A Toolkit for Computer-Aided Musicology
Documentation: <http://web.mit.edu/music21>
Source: <https://github.com/cuthbertLab/music21>

Sound Design

- Stircrazer: Hammer + Flutter*, composed by Sabrina Schroeder, 2014
Mixed ensemble with live electronics
- Interfacing with the surface*, composed by Timothy McCormack, 2013
Trio for horn, cello and synthesizer
- Stircrazer (III)*, composed by Sabrina Schroeder, 2013
Piano solo with live electronics
Premiered at Tzlil Meudcan Festival, Tel Aviv
- eyam iv*, composed by Ann Cleare, 2013
Bass flute solo, with ensemble and live electronics
- Piano Hero 2*, composed by Stefan Prins, 2012-13
Piano solo, with live electronics
- Generation Kill*, composed by Stefan Prins, 2012
Octet for musicians and video-game controllers, with live electronics and video
Premiered at Donaueschingener Musiktage 2012
- Ataraxia*, composed by Edgar Barroso, 2012
Solo for percussion with live electronics
- An Inward Flow*, composed by Edgar Barroso, 2011
Duet for mezzo-soprano and tenor saxophone, with live electronics
Performed at the International Computer Music Conference 2012

Teaching Experience

Harvard University

Electroacoustic Seminar, Spring 2014

Teaching Assistant for Aaron Einbond

Introduction to Live Electronics, Spring 2014

Teaching Assistant for Aaron Einbond

Why You Hear What You Hear: The Physics of Acoustics, Spring 2013

Teaching Assistant for Eric Heller

Electroacoustic Seminar, Spring 2013

Teaching Assistant for Hans Tutschku

Harmony in Electronic Dance Music, Spring 2013

Teaching Assistant for Olaf Post

Intimate Sound Installations, Fall 2012

Teaching Assistant for Hans Tutschku

Introduction to Live Electronics, Spring 2012

Teaching Assistant for Hans Tutschku

Electronic Music and Visual Art, Fall 2011

Teaching Assistant for Hans Tutschku

Introduction to Electroacoustic Music, Fall 2011

Teaching Assistant for Hans Tutschku

Intermediate Music Theory for Concentrators, Spring 2011

Teaching Assistant for Olaf Post

Introductory Music Theory for Concentrators, Fall 2010

Teaching Assistant for Olaf Post

Recent Musical Works

Invisible Cities (iii): Ersilia, (7 minutes), 2015

Performed by Ensemble Dal Niente

Invisible Cities (ii): Armilla, (11 minutes), 2015

Performed by Elizabeth Weisser & John Pickford Richards

Invisible Cities (i): Zaira, (10 minutes), 2014

Performed by Ensemble Mosaik

Plague Water, (10 minutes) for saxophone, electric guitar, piano and percussion, 2014

Performed by Ensemble Nikel

Aqua magnanimitatis, (29 minutes) for 8-channel tape, 2013

In the tall grasses, (41 minutes) for 8-channel tape, 2012

Wild Ambition, (16 minutes) for 8-channel tape, 2011

Premiered at the Sackler Art Museum, Cambridge, MA
Mbrsi/Aurora, (10 minutes) for 22 strings, 2011
 Premiered by Ensemble Kaleidoskop at the Kammermusiksaal, Berlin
Red Steam, (20 minutes) for 8-channel tape and video, 2011
 Performed at Tzlil Meudcan Festival, Tel Aviv, 2011
Silk Method, (12 minutes) for 8-channel tape, 2010
Lagartija, (12 minutes) for piccolo, percussion, violin, and cello, 2010

Publications, peer-reviewed

(2015) T. Bača, J. Oberholtzer, J. Treviño and V. Adán.
Abjad: An Open-source Software System for Formalized Score Control.
 Proceedings of TENOR 2015, First International Conference on Technologies for Music Notation and Representation.

Presentations

Virtual Score Construction with the Abjad API for Formalized Score Control
 Study Day on Computer Simulation of Musical Creativity, University of Huddersfield, 2015.
Abjad: A Python API for Formalized Score Control
 Open Space, Internationales Musikinstitut Darmstadt, 2014
Composing at the command line: Symbolic music representation in Python
 Boston MusicTechFest, 2014
Abjad: A Python API for Formalized Score Control
 University of California at San Diego, 2012
 University of California at Santa Barbara, 2012
 University of California at Santa Cruz, 2012
 Stanford University, 2012
 University of California at Berkeley, 2012
SASHA: Saxophone Acoustic Search and Heuristic Analysis
 Digital Musicology Workgroup, Harvard University, 2010
Particle Music in Timbral Space
 Visiones Sonoras Festival, CMMAS, Morelia, Mexico, 2009

Grants

UCIRA Sorcerer/Alchemy Grant, 2012

Awards

The Harvard University Certificate of Distinction in Teaching, Fall 2014

The John Green Fellowship, 2013

The George Arthur Knight Prize, June 2012

The Harvard University Certificate of Distinction in Teaching, Fall 2013

The Harvard University John Green Fellowship Award, June 2012

The Harvard University Certificate of Distinction in Teaching, Fall 2011

Professional Activities

Reviewer for International Computer Music Conference, 2012

Last updated: June 30, 2015