

Nicholas Solem

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EMPLOYMENT

UNIVERSITY OF CALIFORNIA SAN DIEGO

San Diego, CA

Reader

September 2018 – Present

- Grade undergraduate student papers and projects
- Help individual students with mastery of course content
- Courses: Musical Psychoacoustics, Computer Music I, Audio and MIDI Studio Techniques I

Graduate Student Researcher – Studio

September 2018 – Present

- Hold sessions to ensure graduate student understanding of recording studios and equipment
- Assist with audio troubleshooting for all students: signal flow, digital audio workstations, preamp setup

Technical Maintenance

June 2019 – Present

- Setup, monitor, and tear down professional sound and lighting configurations for various campus events
- Miscellaneous audio and video equipment testing and conservation

ART INSTITUTE OF MICHIGAN

Novi, MI

Adjunct Audio Professor

April 2018 – September 2018

- Taught Acoustics, Sound for Interactive Media, and other undergraduate Audio courses
- Responsible for daily lectures, grading, and leading in-class labs

EVENTIDE AUDIO

Little Ferry, NJ

Audio Software Intern

January 2017 – June 2017

- Write Python script for automatic generation of end user documentation from C++ source code
- Identify faults in presets of upcoming multi-effects studio rackmount unit & maintain record of faults

NEW YORK UNIVERSITY

New York, NY

Max/MSP Tutor

January 2017 – June 2017

- Ensure graduate and undergraduate students understand Max/MSP course material
- Become familiar with student needs & develop individualized approach for each

Studio Technician

January 2016 – June 2017

- Daily calibration & maintenance of Steinhardt's 7 music studios and other building facilities
- Assist faculty and students in troubleshooting of studio and equipment workflow

EDUCATION

University of California, San Diego

San Diego, CA

Doctor of Philosophy in Computer Music, September 2018 - Present

Continuing Research in DSP: Automated Waveform Abstraction, Virtual Analog Filter Design, Nonlinear Modeling

New York University

New York, NY

Master of Music in Music Technology, Fall 2017

Focus on Digital Signal Theory: Digital Filter Design, Digital Synthesis, Frequency Domain Morphing

The College of Wooster

Wooster, OH

B.A. in Philosophy, Spring 2015

Graduated with Cum Laude and Honors

PROJECTS

- Master's Thesis: *A Realtime Algorithm for Spectral Morphing*
Improves on and generalizes a recently developed method for frequency-domain morphing between arbitrary sounds, entirely in realtime.
- Eventide Help Files
Created Python script to generate a hierarchically organized set of digital user help files with the aid of Sphinx, a documentation generator.
- Undergraduate Honors-Earning Thesis: *Can Pure Music Be Meaningful?*

TECHNICAL SKILLS

Programming:	C++, C, Matlab, Python, Javascript	Experienced with JUCE C++ Framework
DAWs:	Logic, Pro Tools, Reason, Reaper, Live	Digital Signal Processing Theory & Implementation
Electronics:	Soldering, LTSpice, Multisim	Music Information Retrieval Techniques
Music:	Music Theory, Tuning Theory, etc.	Max/MSP & PureData, Externals Programming in C