

David A. Buzzell

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EDUCATION

Carnegie Mellon University Pittsburgh, PA

Bachelor of Science in Electrical and Computer Engineering

May 2017

Bachelor of Science in Music and Technology

August 2017

PROJECTS

Depth-Controlled Ambisonic Audio (Music & Tech Capstone)

Summer 2017

- Designed a system that tracks the user's body to control high order ambisonic audio in a 360° speaker ring
- Uses Kinect sensor, software packages for MaxMSP, and TouchOSC design

Large Symphonic Orchestration (Orchestration Final Project)

Spring 2017

- Orchestrated a large symphonic orchestra piece for 34 parts
- Utilized flagship sampling libraries (Albion ONE, Kontakt) and audio editing software to fully synthesize and master the audio recording of the piece

RESEARCH

Non-Contact EEG System

Carnegie Mellon University, Summer 2016

- Designed a non-contact electrode EEG system for Pulkrit Grover as a better alternative to dry/wet contact electrode systems
- Researched current systems, engineered split channel electrodes, and connected several components on printed circuit boards (PCBs)

Hybrid Instruments

Carnegie Mellon University, Summer 2016

- Implemented and tested a microphone pre-amp PCB circuitry with a contact microphone on a 3D printed bow phone case
- Verified performance through use of oscilloscope, audio systems, and self-written mobile software in conjunction with hardware readings

WORK EXPERIENCE

Community Advisor at Carnegie Mellon University

January 2016 – May 2017

- Ensured safety and security of 261 residents living in apartment-style living
- Planned and facilitated weekly staff meetings for 8 resident assistants
- Managed a \$8000 yearly budget for educational programs in professional development, health/wellness, environmentalism, and diversity/inclusion

SKILLS

Python, Pro Tools, C/C++, Git, MaxMSP, Android/Java, TouchOSC, Arduino, HTML/CSS

COURSEWORK

18-491: Fundamentals of Signal Processing 18-349: Embedded Real-Time Systems

15-323: Computer Music Info Processing 57-338: Sound Editing and Mastering

57-347: Electronic and Computer Music 18-493: Electroacoustics

LEADERSHIP

Director - Dancers' Symposium

May 2014 – May 2017

- Developed code to help coordinate schedules for 130 dancers for 300% efficiency
- Organized bi-annual showcases for 40 dance pieces for >1000 audience members
- Acted as liaison for technical crew, auxiliary dance companies, and dance startup