Sam Smith

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Education

The University Of Michigan
Expected Graduation: May 2023
B. S. Performing Arts Technology - Audio Engineering
B. S. E. Computer Science - College of Engineering
Current GPA: **3.51**/4.00

Coursework: Studio Recording and Production, Data Structures & Algorithms, Discrete Mathematics, Music Theory, Acoustics and Psychoacoustics, Electronic Music Arrangement, Immersive Media Design.

Experience

Immersive Media Assistant
Jan 2019 - Present
- Assisted Dr. Anīl Çamci with research in ambisonics and motion capture systems.
- Co-authored a quick-start manual for the usage of qualtrics motion capture system in combination with external applications such as Max/MSP.
- Designed an interface for easy usage of ambisonic systems through the ICST ambisonic library.
- Researching the accuracy of ambisonic systems in acoustically imperfect spaces through a user system. This project used Max/MSP, ICST ambisonics library, Javascript, and Qualisys Motion Capture System.

Media Assistant I
Sep. 2019 - Present
- Instructing training sessions for the certification of students in the duderstadt studio spaces.
- Experience assisting large recording sessions for student and staff projects (setting up mics, routing signal etc.).
- Experience working with digital and analog recording technology including audio network systems such as DANTE.

Projects

FeedBack - PAT 451 Project
April 2020
- Created a multimodal instrument inspired by eclectic audio/visual equipment and the acoustic phenomenon, feedback.
- Built using Max/MSP for sound design and data managment.
- Designed a reactive animation system in processing.
- Created an interaction model to amplify the effects of data loops within the system.
- Ultimately explored human interaction with media interfaces in a creative setting.

Sonic Surfer - PAT 451 Project
Mar. 2020
- Created a multimedia game which integrated spatial audio and unique human-computer interaction.
- Built using Max/MSP for digital synthesis, binaural audio processing and data processing.
- Created a interface that allows for gameplay without visual cues.
- Ultimately showed the viability of non-visual game expereinces.

Great Green Room - Independent Project
Nov. 2019
- Created a self written, produced, engineered, jazz rock album.

Tweet Sonifier - EECS 183 Final Project - 1st place
Dec. 2018
- Created a program to express tweets in the form of audio.
- Built in Python with PyAudio and Tweepy.
- Utilized FFT analysis and natural language processing to sonify text.
- Ultimately explored a future of sonification in the age of data.

Audio/Visual Resampler - Project Music Makethon 2018 Project - 1st place
Nov. 2018
- Created a program to create new audio visual expereinces based on the live performance of a musician.
- Built using C++ and JUCE for the audio analysis via FFT processing.
- Created using Max/MSP to quickly resample videos based on the audio signal of a musician.
- Ultimately showed a possibility of audio reactive visuals in a live performance setting without traditional video editing and animation processess.

Skills

Great With: C++, Python, Audio Engineering, Max/MSP, Git/scm.

Good With: PortAudio, Sound Design, Processing, Java, Javascript.

Familiar With: JUCE, Protools, HTML, CSS, Unity.

Organizations

Audio Engineering Society U-M Student Section - Vice Chair
Jan. 2019 - Present
- Experience organizing financials and logistics of Audio Engineering Society events and competitions.

Men's Glee Club - Member
Sep. 2018 - Present
- Singing a variety of choral repetiore in a large setting and engaging with the community in both musical and non-musical settings.