Sam Smith

Website - https://github.com/sdsmit
Github - https://sdsmit.github.io
LinkedIn - https://bit.ly/304RR3z
Email - sdsmit@umich.edu
Ann Arbor, MI
(231)360-0155

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

Experience

Immersive Media Assistant
Jan 2019 - Present

- Assisted Dr. Anıl Çamcı 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

- Instructed 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

For more project information and demos visit my website, sdsmit.github.io.

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.
- Created a controller with force sensing resistors on a platform to detect where the player was leaning
- Built using Max/MSP for digital synthesis, binaural audio processing, and data processing.
- Ultimately showed the viability of non-visual game expereinces.

Great Green Room - Independent Project
Nov. 2019

- Created a self written, produced, and 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 - Music Makethon - **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 audio processing and Max/MSP for video processing.
- Ultimately showed a possibility of audio reactive visuals in a live performance setting without traditional video editting and animation processess.
- Featured in EECS department newsletter.

Skills

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

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

- Organized logistics of annual Mix/Remix competition including securing sponsorships from companies such as Ableton, Avid, and Shure.
- Applied for funding from national AES organization and UofM student goverenment for a cable-building workshop and a networking event.
- Worked with UofM faculty to judge Mix/Remix and instruct cable building workshop.