Michelle Boisvert

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EDUCATION

University of Michigan – Ann Arbor, MI *August 2022 – Present*
Bachelor of Science in Computer Engineering *Cumulative GPA: 3.51/4.0*
Coursework: Introduction to Computer Organization, Introduction to Signals and Systems, Electrical Engineering Systems Design I, Differential Equations, Discrete Mathematics, Data Structures and Algorithms

University of New South Wales – Kensington, Australia *January 2024 – May 2024*
Coursework: Introduction to Logic Design, Numerical Methods and Statistics

Thomas Jefferson High School for Science and Technology – Alexandria, VA *Graduated June 2022*

PROJECTS

Simple EQ JUCE Plug-In *July 2024*

- Developed a C++ stereo audio plug-in through the JUCE framework that functions as a simple EQ
- Programmed high-pass, low-pass, and frequency filters that controlled frequency, gain, and slope with slider buttons
- Included a spectrum analyzer and the dsp library to show user how the eq affected the inputted audio; displayed the audio on a graph ranging from 20Hz to 20kHz horizontally and -24 to +24 for gain

EECS281 Bank (EECS 281) *October 2023 – November 2023*

- Designed and simulated around a bank in C++ that monitored a user's transactions, withdrawals and deposits by implementing hash tables to manage and create large data structures
- Integrated around 500 users and observed their activity, accounting for overdrafts or unsuccessful logins

TauBot *October 2023 – December 2023*

- Constructed a self-powering robot, programming a Python script that runs once raspberry pi is powered; the aim was to capture photographs in response to the click of a button using the camera and button libraries
- Designed casing for camera and components using SolidWorks, then 3d-printed and painted the case
- Soldered button and wires together to create connection between raspberry pi and the remaining components

Remote Phosphate Sensor *January 2023 – April 2023*

- Created a solar-powered, sustainable, remote device; implemented spectrometry to detect phosphate concentration in water
- Programmed 2 Arduino Unos to communicate and transmit data through radio wirelessly; the transmitting Arduino measured and calculated the concentration of phosphate present – approximately 12% accuracy

WORK EXPERIENCE

Bowdoin International Music Festival, Brunswick, ME – *Production Assistant* *June 2024 – August 2024*

- Facilitated live-streamed events using equipment such as an ATEM SDI and a Zoom L-12 Mixer board and OBS Studio to stream to various channels on Vimeo and YouTube, to make classical music more accessible
- Collaborated with festival faculty and staff to provide a summer experience for roughly 270 participants aged 14 to 34 years
- Assembled the festival sound system to capture live audio of many chamber groups using both a two-mic system, AKG C14 mics to capture stage front stereo audio, and a two-mic hanging setup with Neumann KM 184 mics to capture overhead audio
- Corresponded with the festival participants through email and used Google Sheets to facilitate record keeping of video distribution for the festival, sent roughly 1,000 emails a week containing student and faculty performances

EXTRA CURRICULAR ACTIVITIES

Theta Tau Professional Engineering Organization *September 2023 – Present*

Big Ticket Productions, University of Michigan *September 2022 – Present*

- Coordinated concerts for the school, and brought in performing artists, including Glass Animals, PinkSweat$, and bbno$

University of Michigan Mentorship Program, *Peer Mentor* *August 2022 – December 2024*

- Assisted freshman in their high school to college transition by coordinating events encouraging community in the program
- Facilitated community with groups of about 10 mentees, meeting about twice a month during the first semester

HONORS/AWARDS:

University of Michigan Dean's Honor List *Fall 2023, Winter 2023*

Amazon Web Services InCommunities Scholarship Program Winner *May 2022*

SKILLS

Technical: C++, C, MATLAB, Arduino, Linux, Verilog, FPGA Design, LTSpice, Python, Processing, Autodesk Inventor, SolidWorks

Non-Technical: Music production and mixing (Logic Pro X), playing piano and cello

LinkedIn Learning Certification: Digital Audio Foundations, Fundamentals of Pro Audio Equipment