**Professional Experience**

**Mount Mercy University**

*Assistant Professor of Art* August 2020 - Present

* Oversee Art program, advising students with course scheduling and professional development, resulting in student success after graduation with their career goals
* Facilitate independent research in programming, utilizing PCBs and external electronic components, creating graphic work using Adobe Illustrator for independent clients and my own work, and 3D sculpting/3D Printing

**University of Florida**

*Digital Fabrication Lab Technician* August 2017 – December 2019

* Maintain/repair digital fabrication equipment [FDM 3D printers, CO2 Laser Engravers]
* Worked directly with clients to ensure successful implementation of CAD work resulting in reduced material waste, efficient cut time on CNC mills and laser engravers, and clients returning for more jobs to be processed
* Lead safety and operation demos of Laser Engravers and 3D printers, increasing lab safety measures and material sales due to client confidence to operate machinery independently with their membership

**Education**

**University of Florida** August 2017 – May 2020

*MFA,* Studio Art, Art + Technology

* Implement coding languages [Python,P5.js, Arduino, HTML, Javascript, CSS] for various creative projects
* Integrate wiring of electronic components with various boards [Raspberry Pi, Arduino, custom PCBs]
* Utilize creative software such as Adobe Illustrator for vector drawing to be used for various projects
* Document creative work through various software, showcasing technical drawings, planning, parts lists; code comments.

**Kansas State University** August 201 – May 2016

*BFA,* Studio Art - Printmaking and Digital Experimental Media dual concentration

**Projects**

* **2024** **Animatronic designed in Zbrush, Fusion 360, 3D printed, and running on Python**
  + Using Custom PCBs and custom 3D modeled and printed parts, a life size sunflower was controlled by using servo motors running functions written in python
* **2022** **Sound sculpture running on Arduino**
  + Operating on the Arduino language, a monolithic sculpture was created using custom PCBs driving multi layer audio using basic switch case statements
* **2020** **Large installation featuring interactive sound, video and web project implementing Arduino/Rasperrry Pi driven RFID** **Scanners, Raspberry pi websocket connection leading to webpage**
  + Using both Arduino, and Raspberry PI, a room sized installation was created. Both Arduino boards and Rapsberry Pi boards controlled RFID readers, with custom 3D prints containing the RFID Tags. Using NFC and basic switch case statements, different audio or video would be played. Signage was created using Adobe Illustrator, the webpage was created using HTML, CSS, and Java, and would communicate with a Raspberry Pi using websocket communication
* **2019 interactive EEG headset communicating with Arduino board that displays custom text based on brainwave readings**
  + Modifying an existing PCB to use serial communication with Arduino, a toy EEG reader would send serial packet data, that was then parsed and used for testing conditions based on user input brainwave data. Using Illustrator and the Arduino IDE, a thermal receipt would dispense text and images based on user input via button press.

**Skills**

1. **Languages -** Python, Arduino, C++, HTML, CSS, JavaScript
2. **Software -** Adobe Illustrator, Adobe Acrobat, Zbrush, Fusion 360, KiCad, EasyEDA
3. **Hardware -** FDM/SLA 3D printing, C02 Laser Engravers
4. **Other -** Soldering proficiency, PCB wiring, understanding PCB Schematics, reading PCB layout diagrams, adding PCB footprints, editing PCB symbols**, creating documentation.**