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EDUCATION

Morgan State University, 2018 - 2023 (anticipated), B.S Electrical Engineering

SKILLS

Simulation Tools: AWR, Microsoft Office (Excel, Word, Powerpoint), LT Spice
Equipment: Oscilloscope, Multimeter, Spectrum Analyzer, Power Supplies, Solder Gun
Programming Languages: C, C++, Python

EMPLOYMENT HISTORY

Morgan State University, Baltimore, MD – **Research Assistant** **May 2023 – Present**

- Working for a senior research scientist, Xioawen Li, affiliated with the NASA (GESTARII) program at Morgan State University to assist with her research regarding 3D segmentation of clouds, climate change, machine learning, and neural networks
- Assembled 12 weather stations that use sensors to collect data about wind, temperature, humidity, rain, and solar radiation and placed them around Baltimore City.
- Analyzed and collected data (approximately 500 files) from the algorithm with the purpose of expanding our dataset for utilization in machine learning application
- Noted and corrected data that the algorithm incorrectly segmented by manually segmenting the clouds using python code

Conscious Ingenuity, Baltimore, MD – **S.T.E.A.M Instructor** **April 2022 – Present**

- Working with a Morgan State University professor, Deanna Bailey, to educate inner-city youth through S.T.E.A.M activities.
- Assisting on developing a curriculum that includes S.T.E.A.M, literature, and character development.
    - Developed lesson plans and lesson slides
    - Created tutorial videos pertaining to building circuits
- Responsible for maintaining a safe and inclusive learning environment for a class consisting of 10 to 20 students per session.
- Run a multitude of engaging and interactive S.T.E.A.M-related activities with elementary to middle schoolers, such as:
    - Building and experimenting with circuits
    - Introducing AI and Machine learning concepts and activities
    - Introducing students to coding and programming basics
    - Reading and discussing literature related to S.T.E.A.M concepts

Kriya Therapeutics, Inc., Durham, NC – **Facilities Engineer Intern** **June 2022 - August 2022**

- Collaborated with building management to maintain and improve facilities.
- Developed plans to improve generators and backup power in the possibility of a power outage.
    - Generators are able to provide backup power up to 24 hours depending on power usage.
    - Each UPS (Uninterrupted Power Supply) last for 1 hour

- Oversaw the sampling and testing of various areas in the laboratory in order to complete a mold investigation.
- Completed miscellaneous tasks such as changing/removing receptacles and outlets, installing drywall, painting, testing gas pipes in labs to ensure accuracy of the labels, and installing various devices.

Morgan State University, Baltimore, MD – **Teaching Assistant** **May 2021 - May 2022**

- Provided instruction on a wide range of concepts including building, analyzing, and testing various types of circuits, and python programming using a Raspberry Pi and Linux operating system.
- Demonstrated ability to effectively communicate complex engineering concepts in a simplified manner, promoting student comprehension and understanding.
- Led study sessions before and after class time which provided additional support and guidance to students as they completed lab assignments and other coursework.

PROJECTS

- **Class -** Capstone Project
  - Project: R.A.P.S (**R**echargeable **A**lternative **P**ower **S**upply) - Designed and created a portable power supply that could be recharged five different ways
- **Class -** Signals and Systems
  - Project: Signal into Voltage - Convert a two input signals into a DC voltage in order to power an 7 segment display
- **Class -** Principles of Design
  - Project: Air and Water Quality Monitoring Device - Built a device that uses sensors and a microprocessor to test air and water quality. It also sends alerts to the user is the air and water quality reaches the given threshold
- **Class -** Electronic Circuits
  - Project: Audio Amplifier - Takes AC signal and converts it into a DC signal. Clean up the signal using rectifiers and capacitors. Amplify the signal in order to hear the output through a speaker

OTHER EXPERIENCE

- Aerospace Engineering Program at NC State (2019)
  - Project: Materials in Space Study- Study of Functional Integrity Under Extreme Conditions of Heat and Impact
- Biogen Community Lab Program (2016)
  - Project: E-Coli - Incubation of e-coli on petri dish