

EDUCATION

Morgan State University | Baltimore, MD

September 2020 - Expected May 2026

Bachelor of Science Degree in Electrical and Computer Engineering | **GPA: 3.3**

Relevant Courses (Completed/In Progress): Signals and Systems, Electromagnetic Theory and Applications, Electronic Materials and Devices, Electronic Circuits, Discrete Systems, Wireless Cellular Communications, Senior Design Project I, Senior Design Project II, Principles of Design, Introduction to Professional Practice

PROFESSIONAL EXPERIENCE

RESEARCH ASSISTANT | **Morgan State University** | **Baltimore, MD**

Sept 2024 –Present

- Assess research on methods that will increase the accuracy of an ML model to predict PM 2.5 in and around the Baltimore area
- Led outreach initiatives engaging 60+ students, increasing student engagement in Climate science programs
- Optimizing content and layout for the Climate Science division's website; increased average time spent on pages by 40 seconds

STUDENT INTERN | **Johns Hopkins University** | **Baltimore, MD**

Jun 2025 – Aug 2025

- Conducted research on automatic visual anomaly detection to address challenges in data scarcity in computer vision.
- Evaluated and compared machine learning approaches for anomaly reasoning across applications, including defect inspection and extreme material sciences
- Delivered technical summaries and presentations to communicate research findings to faculty advisors.

UNDERGRADUATE STUDENT RESEARCHER | **Cleveland State University** | **Cleveland, OH**

May 2023 – Aug 2023

- Participated in an NSF-funded research program focused on motion analysis and balance impairment in older adults
- Successfully conducted 15+ literature reviews to identify the most suitable sensors for measuring impaired balance in older adults.
- Evaluated over 50 individual performance sessions by analyzing motion data with MATLAB, uncovering critical insights regarding movement patterns tied to balanced activity engagement for improved training protocols.

RELEVANT PROJECTS

Senior Design Project I & II – “MSUTorch: Evaluating an Open-source Dataset”

- Building an ML-based testbed to classify signals in the presence of EMI (project in progress)
- Developing a robust TorchSig pipeline in anticipation of DoD contractor proposal evaluation

Applied Probability and Statistics for Electrical Engineers – “Parameter Estimation for a Simple RLC Circuit”

- Tasked with implementing the key concepts of a simple RLC circuit in MATLAB
- Presented a noise-free, noisy response, and the least-squares model plot from a provided RLC circuit

Electronic Circuits – “Three-Stage Amplifier”

- Designed a three-stage amplifier using BJTs and MOSFETs to achieve the professor's desired result
- Tested and verified amplifier performance against design specifications

Signals & Systems – “Security AI Robot”

- Constructed an AI-equipped Jetbot robot that would help escort an individual traveling to their destination
- Programmed Jetbot robot to perform various security measures, such as facial recognition, path following, distance sensing, road following, and facial detection

RELEVANT SKILLS

- **Programming Languages:** MATLAB, C, C++, Python
- **Operating Systems:** Windows, Linux
- **Tools & Software:** MS Office Suite, LTspice
- **Lab and Hardware Skills:** Waveform Generators, Multimeters, Soldering, Oscilloscopes, Breadboards, Power Supplies

HONORS AND INTERESTS

Dean’s List Recipient (Fall 2020, Spring 2022, Fall 2024)

Cooking, Traveling, Football, Basketball, Board games, and Chess