

# Raymond Wang

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## Objective

Seeking a Robotics and Data Analytics internship to apply my experience in Python, C++, embedded systems, and machine learning toward developing intelligent robotic systems and data-driven engineering solutions.

## Education

### **Georgia Institute of Technology | Atlanta, GA**

Bachelor of Science in Computer Engineering, GPA 4.00

June 2025 – Present

Expected Graduation, May 2028

### **The Ohio State University | Columbus, OH**

Bachelor of Engineering in Computer Science and Engineering

Transfer with 68 Credit Hours, GPA 3.78

August 2024 – May 2025

## Skills

**Programming & Development:** [scikit-learn](#), [TensorFlow](#), [NumPy](#), [Pandas](#), [Python](#), [SQL](#), Java, C++, Git, MATLAB, HTML/CSS/JavaScript

**Software & Systems:** Software development, debugging, Fusion 360 (CAD), KiCad

**AI & Data Analytics:** Model development, data preprocessing, predictive modeling, data visualization (Matplotlib)

**Healthcare & Clinical Data:** Biomedical signal analysis (12-lead ECG), data integrity, clinical outcome correlation, privacy awareness

## Experience

### **Machine Learning Research Assistant - *Miami University / Oxford, Ohio***

August 2022 – February 2023

- Developed [Python-based ML models](#) using [scikit-learn](#), [NumPy](#), and [Pandas](#) to localize arrhythmias using 12-lead ECG clinical signal data, reducing surgical procedure time by up to two hours.
- Conducted data preprocessing and validation to ensure consistent model accuracy and reproducibility.
- Created data visualizations in Matplotlib and MATLAB to assess model performance and detect bias.
- Collaborated with biomedical engineers and clinicians, ensuring compliance with data handling standards.
- Published two peer-reviewed papers. DOI: [10.3389/fphys.2023.1183280](https://doi.org/10.3389/fphys.2023.1183280) and [10.1016/j.cjca.2023.05.016](https://doi.org/10.1016/j.cjca.2023.05.016)

### **Web Development Instructor - *ScioVirtual / Online***

June 2025 – August 2025

- Taught students HTML, CSS, and JavaScript in a virtual classroom environment.
- Designed interactive lessons emphasizing debugging and real-world applications.
- Improved course satisfaction score from 6.8 to 8.7 through clear instruction and responsive communication.

## Technical Projects

### **Memory Forensics for Machine Learning Integrity**

August 2025 – October 2025

- Built and trained a convolutional neural network (CNN) in PyTorch from scratch using the CIFAR-10 dataset, implementing custom training and validation.
- Exported the model to TorchScript and integrated it with a C++ inference program
- Used GDB to inspect tensors and model organization in memory, documenting results

### **RoboJackets | RoboWrestling Electrical Member**

September 2025 – Present

- Designed and implemented C++ control systems integrating sensors for autonomous robotic movement and detection.
- Collaborated on embedded system design and integration using KiCad and Fusion 360 (CAD).
- Gained exposure to intelligent system behavior and mechanical-electrical integration relevant to physical security and robotics.
- Applied version control (Git) and team-based debugging to maintain robust hard-software interaction.

## Leadership or Activities

### **Ohio Science Olympiad | Scrambler State Event Supervisor**

August 2024 – May 2025

- Led event design, testing, and timing validation for 150+ participants.
- Managed a 7-member volunteer team through effective communication and collaborative leadership.
- Ensured fair evaluation using precise data tracking and attention to detail in event measurements.