Robert Thomas

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Education

Bachelor of Science: Computer Engineering   Expected May 2026
University of North Carolina at Charlotte

- **GPA**: 3.9
- **Concentration:** Machine Learning
- **Minors:** Mathematics, Software Development
- **Relevant Coursework:** Programming in C++, Embedded Systems, Electronics and Circuit Analysis
- **Achievements:** IEEE HKN Honor Society, Chancelor's List

Relevant Employment History

University of North Carolina at Charlotte   Dept. of Electrical and Computer Engineering
Engineering Research Assistant   *Oct 2023 - May 2023*

- Cooperated with a team in designing and developing an Unmanned Aerial Vehicle (UAV).
- Used C++ and Arduinos to program a UAV to navigate autonomously.
- Engineered data communications between multiple UAVs using UDP.
- Enabled machine learning to recognize and detect objects for successful flight navigation.

                                                                      Office of Learning Space Technology
Classroom Support Technician   *Aug 2023 - Current*

- Provided technical support for classroom equipment, including PCs, projectors, and microphones.
- Handled troubleshooting of hardware and software issues reported by faculty and students.
- Responded to and resolved technical inquiries and requests via phone and in-person assistance.

                                                                Office of Student Development and Success
Mathematics Tutor   *Summer 2024*

- Tutored freshmen in math classes improving the class averages for the final grades.
- Assisted students in preparing for exams, quizzes, and homework assignments by breaking down complex topics into manageable steps.
- Fostered a positive and encouraging learning environment, leading to significant improvements in student performance and fascination with mathematics.

Technical Projects

Research Project in Machine Learning

- Collaborated in the training of a machine learning algorithm using YOLOv5 model training.
- Algorithm successfully improved existing software to detect traffic lights for autonomous vehicles.

RaspberryPi Web Server

- Designed and developed a personal website (robertengineer.com) from scratch using HTML, CSS, and JavaScript.
- Implemented responsive design principles to ensure compatibility across various devices and screen sizes.
- Leveraged Linux command line and SSH tools for website deployment and maintenance on a Raspberry Pi server.

Customized Personal Computer Build

- Selected and sourced components based on performance requirements and budget constraints, including processor, motherboard, RAM, storage drives, graphics card, power supply, and cooling solutions.
- Conducted thorough testing and troubleshooting to identify and resolve hardware and software issues, ensuring stability and reliability.

Technical Skills

Languages: C++/C, Python, JavaScript
Technologies: Arduino, RaspberryPi, MATLAB, Robotics, Embedded Systems, Linux, LaTeX