Eric M. Rohloff

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EDUCATION

Tufts University, Medford, MA   May 2026
Bachelor of Science in Computer Engineering,
Minors in Computer Science and Engineering Management
Relevant Courses: Computer Organization, Digital Signal Processing, Algorithms, Embedded Systems, Intro to Security, Data Structures, Computer Networks, Computer Engineering, Probabilistic Systems Analysis

EXPERIENCE

Tufts Center for Engineering Education and Outreach   Medford, MA
Undergraduate Research Assistant   Jan 2023 - Present
- Assembled a Printable Circuit Board that facilitated a connection between LEGO SPIKE Prime and an ESP32.
- Designed software to expand on the capabilities of the SPIKE Prime to add external analog and digital sensors.

Rogers Lab Technology Development Summer Intern   June – Aug, 2023-2024
- Created a web-based Data Science activity utilizing BLE, MQTT, and Serial communication protocols to teach students fundamentals of Python through the LEGO SPIKE Prime and UV Sensor Data.
- Developed a web page leveraging Python and JavaScript that allows for data to be sent between MQTT linked pages using a Python wrapper on the web.

Tufts University Residential Life and Learning   Medford, MA
Residential Assistant   Aug 2023 –Present
- Organized monthly events for undergraduates to build stronger bonds in the community and communicated with managers and other Residential Life personnel to ensure safety of the building and its residents.

FedEx Ground   Dayton, NJ
Package Handler   June 2022 – Aug 2022
- Managed to flow of a hundred packages per hour from freight trucks onto conveyor belts to be processed and prepared to ship.

PROJECTS

ARM LEGv8 Processor, Computer Organization, Tufts University   September 2024
- Implemented an ARM LEGv8 processor using VHDL that can detect and control data hazards.
- Engineered multiple testbenches to test individual component functionality and verifying the ARM v8-64bit ISA functioned as intended.

Connect 4, Embedded Systems, Tufts University   April 2024
- Created a Connect4 game using an STM32L4 board along with an external NES controller and speaker as part of a three-person team.
- Responsible for the game logic and the external NES controller input

Flappy 'Bos, Intro to Digital Electronics, Tufts University   December 2023
- Programmed a Tufts themed Flappy Bird game using an FPGA as part of a team.
- Constructed the program for implementing the graphics using a VGA cable and minimizing system memory used.

LEADERSHIP EXPERIENCE

Institute of Electrical and Electronics Engineers   April 2024 – Present
Junior Representative
- Lead workshops for students involving PCB design, communication protocols, and advising.
- Promoted the club to the student body and recruited more members to participate in club workshops.

Tufts University Jumbo Code   Sept 2023 – Jun 2024
Full Stack Developer
- Programmed a web application that utilizes data from a MongoDB database and leverages a matching algorithm to find correct funding sources for Sommerville Homeless Coalition.

SKILLS

Programming Languages: C/C++, Python, Java, JavaScript, MATLAB, SQL, VHDL, Git
Development Tools: Visual Studio Code, Eclipse, Keil, KiCad, LTspice
Tools and Operating Systems: Linux, macOS, Windows, Oscilloscopes, Multimeters, Logic Analyzers