

Zachary Thornton

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EDUCATION

Clarkson University - Computer and Electrical Engineering - Graduating 2028 - Cumulative GPA: 4.0

High School Diploma - Lebanon High School - Graduated 2024 - GPA: 4.0

EXPERIENCE

Appcast Inc, Software and Data Analytics Intern (2025)

- Improved client recruitment pipelines, increasing potential applicants by 10,000
- Developed internal tools that utilized Python and Postgres SQL that improved efficiency

Clarkson University, Underwater Robotics (2024 - present) - Safety Captain

- Collaborated on the development of software for a remote-controlled submersible robot
- Ensured safety compliance as Safety Captain

Clarkson University, Open Source Institute (2024-present)

- Contributed software solutions to benefit the institute's operations
- Developed a personal website

Clarkson University, Amateur Radio Club (2024 - present) - Treasurer

- Participated in HAM Radio contests and events
- Licensed as a General Class Operator (KE2FBR)
- Managed the club's finances, including budgeting, expense tracking, and fund allocation

River Valley Community College, Statistics Tutor (2025)

- Worked with students to improve their understanding of useful statistics concepts for their fields
- Aided students with homework and class assignments regarding regression analysis,

PROJECTS

Pet Tracking IOT System (OOP, Python, C/ C++, Networking)

- Networked microcontrollers to a web server for real-time food and water monitoring.
- Created a Discord bot to send pet updates with camera integration using the Discord API
- Integrated an LLM API for natural, conversational responses

Face Tracking Robot (OpenCV, Raspberry Pi)

- Developed an OpenCV-based detection system for real-time face tracking
- Controlled servo motors to dynamically adjust camera orientation

Sensor Driver (OOP, C/C++, Linux)

- Designed and implemented a low-level object-oriented Linux kernel driver for a pressure sensor and accelerometer
- Enabled real-time sensor data collection and integration into larger systems

TECHNICAL SKILLS

Languages: C / C++, MATLAB, Python, Java, SQL (Postgres), JavaScript, HTML/CSS

Embedded Devices: Arduino, Raspberry Pi, Raspberry Pi Pico W, ESP32

Operating Systems: Linux (Arch, Debian), Mac OS, Windows