

Ethan Osmundson

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Education

University of Minnesota – Twin Cities

Bachelor of Arts, Computer Science

Minor in Statistics

Graduated May 2023

GPA: 3.93 (with High Distinction)

CS Coursework: Intro. Operating Systems; Machine Architecture; Database Systems; Secure Software Systems; Algorithms and Data Structures; Parallel Computing; Program Design and Development, Computer Networking; Data Visualization

Statistics Coursework: Regression and Correlated Data; Design and Analysis of Experiments; Nonparametric Methods

Experience

Software Engineer I (Firmware) – Boston Scientific

Sep. 2023 – Present

- Collaborates cross-functionally on the design and implementation of Class III medical device firmware in early development
- Develops a software validation tool in embedded C which simulates components in an upcoming urology product

Data Science Intern – Boston Scientific

May 2023 – Aug. 2023

- Explored image augmentation techniques to improve the accuracy of classification models used to validate thousands of medical devices per month
- Designed and executed experiments to compare the efficiency and performance of a variety of neural network architectures on visual inspection tasks

Firmware Engineering Intern – Boston Scientific

May 2022 – Sep. 2022

- Developed an embedded C simulation of a piezo driver and pressure sensor used for firmware testing of an upcoming urology product using RTT, SPI, and I2C technologies
- Developed a C# Windows application for firmware validation and testing
- Communicated results cross-functionally with team members from various disciplines

Director of Operations & Co-President – UMN Solar Vehicle Project

June 2021 – May 2022

- Managed operational and financial aspects of a \$250k/year student engineering organization
- Maintained strong relationships with corporate sponsors and University administrators
- Managed logistics for a cross-country solar vehicle race during the 2021 American Solar Challenge

Undergrad Teaching Assistant – UMN Dept. of Computer Science and Engineering

Sep. 2021 – Dec. 2021

- Graded and provided constructive feedback on Python programming assignments
- Worked to establish a positive and inclusive learning environment for all students

Projects

Internet Chatroom

A chat software built using C sockets and POSIX threads. The chatroom included features such as direct messages and multiple concurrent users. Developed as a requirement for a networking course.

Drone Search and Rescue

A virtual drone search-and-rescue simulation built using C++, OpenCV for image processing, and Docker for containerization. Developed in a team of four as a requirement for a program design course.

Skills

Languages: C; C#; Python; R

Tools: I2C/SPI; VS Code; J-Link; Logic Analyzers; Microcontrollers; GDB; Version Control; Linux; Docker

Other: Public Speaking; Leadership