Ethan Osmundson

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Education

University of Minnesota – Twin Cities May 2024
Master of Science, Computer Science

University of Minnesota – Twin Cities Graduated May 2023
Bachelor of Arts, Computer Science, with High Distinction GPA: 3.93
Minor in Statistics

CS Coursework: Intro. Machine Learning; Data Visualization; Intro. Artificial Intelligence; Practice of Database Systems; Algorithms and Data Structures; Parallel Computing; Software Engineering
Statistics Coursework: Regression and Correlated Data; Design and Analysis of Experiments; Nonparametric Methods

Experience

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 pump driver and pressure sensor to be used for automated firmware testing on an upcoming implantable urology product
- Developed C# Windows application for firmware validation using RTT, SPI, and I2C technologies
- 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 with 50 active members
- 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

Stock Data Chatbot
A Discord chatbot which provides stock data and charts to users. Built using Python and various REST APIs.

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 software design course.

Skills

Languages: Python; C; C#; R
Tools: Docker; TensorFlow/Keras; Git; Linux; Visual Studio Code; RStudio; GDB
Other: Public Speaking; Leadership