SHREENITHI MADAN

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EDUCATION

Franklin W. Olin College of Engineering — **Needham, MA**
Bachelor of Engineering in Computing — **2020 – 2024**

- Study Abroad: Full cultural immersion semester in South Korea.
- Clare Booth Luce Fellowship Recipient: chosen in a very competitive and selective process.
- Relevant Coursework: Full Stack Web Development, Data Structure & Algorithms, Software Systems

PROFESSIONAL EXPERIENCE

Robolabs — **Dublin, CA**
Software Engineer (part-time) — **June 2024 - Present**

- Leading the design and development of robust AI software solutions for competitive robotics using C++ and Python, contributing to our team's Think Award win at the VEX AI World Championship.
- Spearheading the creation and implementation of cutting-edge programming courses and hands-on lab experiences for VEXAI camp, providing specialized training and mentorship to participants, enabling over 30+ students to achieve the Robolabs AI in Robotics certification.
- Engineering Robolabs BusinessOS, an automation tool suite, designed to enhance operational efficiency by over 50% and streamline business processes, driving productivity and innovation across the organization.

LineVision — **Boston, MA**
Full Stack Developer Intern — **Dec 2022 – Dec 2023**

- Designed, built, tested, and maintained software applications and user interfaces using HTML, CSS, JavaScript, and React, helping to enhance visualization of data for improved decision-making and actionable insights.
- Independently developed standalone application that significantly enhanced user experience, raising user satisfaction by 75%.
- Led cross functional effort to integrate with internal and external APIs, cloud services, and relational databases to optimize the overall efficiency of data-driven processes by 50%. Utilized Python and SQL scripting for backend data processing.
- Contributed to new system designs and proof-of-concept exploration that laid groundwork for enhanced functionalities and improved system performance.

Amazon Robotics — **Westborough, MA**
Project Manager, Olin Senior Capstone Team — **Sept 2023 – May 2024**

- Lead a team of five, liaising with industry sponsors and advisors to drive project requirements and execution.
- Created and tested strategic object taxonomy for Amazon's product catalog that is projected to increase efficacy in warehouse operations by 30%.
- Developed a comprehensive virtual testing environment using Drake simulation software, C++, and Python, enabling thorough testing and validation of our solutions. Led the physical testing phase, ensuring the seamless integration and functionality of our solutions in real-world warehouse settings.

Pfizer — **Groton, CT**
Project Management Intern, Global Clinical Supply — **May 2022 – Aug 2022**

- Created insightful project documentation, optimized timelines, actionable strategy plans for academic outreach that is projected to positively impact future recruiting.
- Built relationships with partner companies to quickly understand revenue driving requirements, shortening release cycles.

PROJECTS

Grid Statistics Display

- Developed a user-friendly web tool to display power grid statistics, including price and carbon intensity, using data from regional transmission operators.
- Implemented backend with a Flask server and frontend with React, ensuring efficient data processing and visualization.
- Created separate frontend components for different types of graphs (load, emissions, etc.) to streamline data visualization and improve user experience.

Fake News Detection

- Investigated different machine learning models and feature sets for fake news detection, validating results against recent research benchmarks using the Truth Seeker dataset.
- Utilized Python libraries (NumPy, Matplotlib, pandas, scikit-learn) for numerical operations, visualization, data manipulation, and machine learning.
- Enabled customization of model parameters and input features. Defined and used key evaluation metrics (
- Compared results with literature benchmarks, noting trends and accuracy metrics. Provided detailed analysis and practical recommendations, highlighting trade-offs in computational efficiency between different models.

SKILLS

Programming Languages: Python, Javascript, C/C++, R, OCaml, Golang
Web Development: React, HTML. TypeScript. CSS, Node.js
Data Science: Python (for data analysis), R (for data analysis), SQL
Tools and Technologies: Git, Docker/Containerization, MATLAB, Arduino, YAML, Bash
Languages: English (Fluent); Tamil (Fluent); French (Conversational); Korean (Conversational).