Sreeja Thipireddy

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EDUCATION

Massachusetts Institute of Technology (Cambridge, MA)   **2022 - 2026 (Expected Grad)**
- BS in Computer Science and Engineering, BS in Mathematical Economics
- GPA: 4.6/5
- Relevant Coursework: Software Construction, Design & Analysis of Algorithms, Machine Learning, Computational Thinking and Data Science, Computation Structures, C and Assembly, Software Performance Engineering

RELEVANT WORK EXPERIENCE

Octaura (New York City, NY) - Software Engineering Intern   **June - Aug 2024**
- Engineered an access control application for Octaura's loan trading platform by developing RESTful APIs that authorize internal users to correct market data in real-time databases
- Contributed to the startup's mission of streamlining loan and CLO trading by deploying the application to production and realizing a 20% increase in average market data accuracy
- Utilized Java/Spring Boot for backend and React/TypeScript for the UI, creating thorough unit tests for each API
- Partnered with Data Analytics, Market, and Finance teams to understand loan trading processes and how to leverage data and analytics for market and buy-side decision-making

MIT Nuclear Sciences and Engineering Lab (Cambridge, MA) - Data Science Research Intern   **Sep - Dec 2023**
- Utilized existing proper orthogonal decomposition (POD) techniques in Python to condense and graphically represent thousands of data entries from fluid dynamics simulations
- Engineered data files to meet requirements of POD functions using NumPy and Pandas
- Met weekly with graduate students and supervising faculty to assess bugs in code and structure of data files

My Best Plan (Houston, TX) - Software Engineering Intern   **June - Aug 2023**
- Increased ease of navigation and organization of the system's database through programming repetitive tasks using Python and JavaScript, aiding in the company's mission to determine the most cost-effective electricity plan for clients
- Created Django tools to process CSV files containing commission data from energy companies, sort and filter data, and add corresponding invoice adjustments to client accounts
- Collaborated with the Senior Engineer to fix bugs and AWS server issues to decrease turnaround time for projects
- Took initiative to research supply and demand for natural gas and electricity/energy markets in Houston, leading to a better understanding of supplier logistics and more efficient programming

MIT Sea Grant Lab (Cambridge, MA) - Software Research Intern   **Jan - May 2023**
- Utilized ROS2 in Ubuntu virtual machine to create a software emergency stop for Oystermaran, a robotic boat designed to reduce labor costs for oyster farmers by automating the task of flipping oyster baskets
- Created a subscriber node that would receive constant messages from a publisher node on shore; all boat functions are halted when the program is terminated on shore, increasing safety and allowing remote control of the boat
- Configured Raspberry Pi pins to disconnect the boat's power supply when the subscriber no longer receives messages

OTHER EXPERIENCE

MIT La Casa (Cambridge, MA) - President   **Dec 2023 - Present**
- Organize and oversee MIT's Hispanic cultural dorm by conducting monthly house-wide meetings to discuss updates and pertinent issues with other members
- Maintain correspondence and represent La Casa with MIT and the Office of Minority Education

AWARDS/RECOGNITIONS

TMSCA/UIL Competitions (Texas)   **2012-2022**
- Consistently placed in the top five for Number Sense, a 10-minute 80-question mental math test, in school, district, region, and state competitions

SKILLS/EXPERIENCE/INTERESTS

- Coding languages/Packages: Python, Java, Typescript, C, Assembly, R, SQL, Pandas, NumPy
- Software/Hardware: React, Spring Boot, PostgreSQL, Django, Amazon AWS, ROS2, GIT, Raspberry Pi
- Interests: Poker, Game Theory