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Advay Muchoor

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EDUCATION

University of Michigan, College of Engineering   Ann Arbor, MI
Bachelors of Science in Computer Science; GPA: 3.96/4.00   *Sep 2019 – May 2023*

- **Relevant Courses:** Operating Systems (EECS 482), Compiler Construction (EECS 483), Networks (EECS 489), Machine Learning (EECS 445), Foundations of Computer Science (EECS 376), Computer Organization (EECS 370), Data Structures and Algorithms (EECS 281)
- **Honors and Awards:** Deans Honors List (all semesters), EECS Scholar, Two-Time MSAS Hackathon Winner

WORK EXPERIENCE

Citadel Securities   Chicago, IL
Incoming Software Engineer Intern   *June 2022 - Aug 2022*

NVIDIA   Santa Clara, CA (Remote)
Software Engineer Intern   *Jan 2022 - April 2022*

Belvedere Trading   Chicago, IL (Remote)
Software Engineer Intern   *June 2021 - Aug 2021*

- **Exchange Simulator Optimization:** Identified bottlenecks in exchange simulator tool and developed solutions in React and Python that reduced startup time and memory usage on startup by 90% and rendering time by 90%
- **Thread Usage Refactor:** Refactored C++ code that used proprietary busy-looping High Priority Threads to instead use thread-safe concurrent processing queues and an event driven architecture
- **Network Communication Transition:** Transitioned network communication protocol used between services from open source IceStorm PubSub framework to internal framework that abstracts out verbose connection details

IHS Markit   Southfield, MI (Remote)
Data Analytics Intern   *June 2020 - July 2020*

- **Model Construction:** Built machine learning model to forecast consumer spending that operated at an 85% accuracy rate and was subsequently integrated into a product delivered to hundreds of clients

CAMPUS EXPERIENCE

U of M EECS Department   Ann Arbor, MI
Instructional Aide, EECS 482: Operating Systems   *Aug 2021 - Present*

- **Course Topics:** Covered topics such as multithreading, virtual memory, file systems, and networking
- **Teaching:** Wrote exams, helped design discussion curriculum, held weekly lab sessions, answered questions on online class forum, and held office hours to develop and reinforce student understanding of key Operating Systems concepts

U of M Athletic Department   Ann Arbor, MI
Software Developer   *Aug 2018 - Dec 2020*

- **Wearable Technology:** Analyzed player movement data using Pandas/Numpy to aid coaches in decision-making related to injury prevention and performance enhancement
- **Dashboard:** Created interactive dashboard that allowed teams to locate significant trends in player wearable data and incorporate analytics in daily protocols, laying groundwork for future tech integration within Michigan Athletics

PROJECTS

Pursu: Led backend team to develop an automated email analysis tool that currently helps 100+ computer science students keep track of recruiting stages and relevant information with multiple companies

Operating System Projects: Created thread library, virtual memory pager, and remote file server using C++

Networks Projects: Simulated TCP on top of UDP and implemented DASH protocol using C++

SKILLS

Languages: C++, Python   **Technologies**: Flask, AWS