Sahil Jaganmohan

Embedded Software Engineer

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Education

MS Computer Engineering GPA: 4.00 Purdue University, December 2022

BS Computer Engineering GPA: 3.90 Purdue University, December 2021

Skills

Languages: C/C++, Java, Python, Golang, JavaScript, SystemVerilog, Swift, Ruby

Embedded Systems: I2C, DMA, SPI, UART, GPIO **NVIDA-CUDA, ESP32**

Hardware: ASIC Design, PCB-Design, ARM v6-M, RTL, FPGA

Databases: SQL, OracleDB, MongoDB

Cloud/Containerization: Azure, AWS-EC2, Docker, Kubernetes, Jenkins

Courses

- Applied Algorithms (ECE 595AA)
- Programming **Parallel Machines** (ECE 563)
- Operating Systems (ECE 469)
- Embedded Systems (ECE 568)
- **Applied Quantum** Computing (ECE 595)

Professional Experience

• Apple Inc. - Cupertino, CA Embedded SWE Intern - Silicon Engineering Group 05/2022 - 08/2022

05/2021 - 08/2021

L3Harris – Melbourne, FL

Embedded SWE Intern - Space and Airborne Systems

- Developed embedded solutions on an ARM controller for upcoming product releases, focusing on feature optimization.
- Integrated custom **FPGA hardware** with embedded controller.
- In-depth details are confidential as per US Title-18.

AT&T - Seattle, WA

05/2020 - 08/2020

Software Engineering Intern - AMP ML Team

- Worked on AMP, metadata search engine for applications, reports, and data. Using predictive analysis and machine learning models to classify users under personas to improve "relevancy" for search results.
- Developed an **NLP model** to identify abstract "topics" from searches.
- Improved search result relevance and user classification by 25%

CME Group - Chicago, IL Software Engineering Intern - Trade Execution Systems

05/2019 - 08/2019

- Worked with Order Entry division of the GLOBEX platform. Developed and implemented fault tolerance across Market Segment Gateways (MSGW)
- Implemented a dynamic state sync across all connected distributed systems, client systems, order entry systems, and matching engine.
- 2019 CME CodeUp 3rd Place Developed a profitable trading algorithm on CME derivative markets.

Purdue University **ECE Teaching Assistant**

01/2019 - Present

- ECE 469 GTA Operating Systems, ECE 368 Data Structures & Algorithms
- ECE 337 ASIC Design, ECE 264 Advanced C Programming

Research Experience

Dark Matter Big Data Research Purdue University

08/2018 - 02/2019

Using data analytics and developing algorithms to parse petabytes of sensor data collected by the XENON 100 sensor searching for Dark Matter trends.

Leadership Experience

Purdue BGR - Supervisor

08/2019 - Present

- Fostered an inclusive work environment centered around interpersonal skills with an emphasis on personal development.
- Managed and organized the direction of orientation leaders to support the transition of 300 students.
- Purdue BGR Team Leader
 - Demonstrated effective leadership and communication leading a group of 15 incoming college students around a large and complex orientation program.

Projects

- **MapReduce**
 - Developed a full-scale map-reduce implementation designed to run across several multi-core machines using OpenMP and MPI.
- **Blockchain Credit Card Implementation**
 - Golang application to mimic card transactions through POC blockchain implementation.