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)
- **Applied Quantum Computing** (ECE 595)
- **Operating Systems** (ECE 469)
- **Embedded Systems** (ECE 362)

Professional Experience

- **L3Harris – Melbourne, FL** **05/2021 – 08/2021**
  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** **05/2019 – 08/2019**
  Software Engineering Intern – Trade Execution Systems
  - Worked with Order Entry division of the **GLOBEX** platform. Developed and implemented **fault tolerance** across Market Segment Gateway (MSGW) instances with FT daemons.
  - Implemented a **dynamic state sync** across all connected **distributed systems**, client systems, **order entry systems**, and **matching engine**. Improved team's SDLC by over **30%** with FT implementation.
  - 2019 CME CodeUp - **3rd Place** – Developed a profitable **trading algorithm** on CME derivative markets.
- **Purdue University** **01/2019 – Present**
  ECE Teaching Assistant
  - ECE 469 **GTA** – Operating Systems**,** ECE 368 – Data Structures & Algorithms
  - ECE 264 – Advanced C Programming, CS 159 – C Programming

Research Experience

- **Dark Matter Big Data Research** **08/2018 – 02/2019**
  Purdue University
  - 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 200 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.