

Education

MS Computer Engineering
GPA: 3.70
Purdue University,
December 2022

BS Computer Engineering
GPA: 3.90
Purdue University,
December 2021

Skills

Languages: C/C++, Java,
Python, Golang, Rust, Swift

Embedded Systems:
RTOS, I2C, DMA, SPI,
UART, GPIO, NVIDIA-
CUDA

Hardware: SystemVerilog,
ASIC Design, PCB-Design,
RTL, ARM v6-M, 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** **05/2022 – 08/2022**
Embedded SWE Intern – Silicon Engineering Group
 - Developed embedded solutions for analyzing and optimizing performance on Apple **SOCS**.
 - Worked on an in-house **RTOS**; Designed features to interface and interact with **hardware architecture**, primarily to identify/resolve **memory bandwidth bottlenecks**.
- **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 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 derivative **trading algorithm**.
- **Purdue University** **01/2019 – Present**
ECE Teaching Assistant
 - ECE 469 **GTA** – Operating Systems, ECE 368 **GTA** – Data Structures & Algorithms, ECE 337 – ASIC Design, ECE 264 – Advanced 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 300 students.

Projects

- **Pegasus Insoles**
 - Built a smart insole to provide real-time feedback and statistics for runners.
- **MapReduce**
 - Developed a full-scale map-reduce implementation designed to run across several multi-core machines using **OpenMP** and **MPI**.