

PRANAV VIJAY

San Diego, CA

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EDUCATION

University of California, San Diego

September 2021 – December 2024

Bachelor of Science in Computer Engineering - GPA: 3.88 - Cum Laude

San Diego, CA

- Awards: Jacobs School Scholarship (Full ride awarded to 10 engineering students in the Class of 2025)

SKILLS

Languages: Python JavaScript, TypeScript, Go, Java, C, C++, CUDA, OpenCL, SQL, HTML, CSS

Technologies: Git, GitHub, Linux/Unix, Docker, Oracle Database, MongoDB, Elasticsearch, Grafana, Gradle

Frameworks/Libraries: React, Node.js, Redux, Flask, Spring, Elasticsearch, NumPy, Pandas, TensorFlow

EXPERIENCE

Advanced Micro Devices, Inc.

September 2024 – December 2024

Incoming Firmware Engineer Intern - Client APU

Santa Clara, CA

MongoDB

June 2024 – August 2024

Software Engineer Intern - Atlas App Services

Austin, TX

- Doubled language support on MongoDB Atlas function triggers for over 40,000 users using Go and TypeScript
- Engineered a transpiler using Go, JavaScript, and Babel to convert TypeScript into executable JavaScript
- Leveraged the custom transpiler and developed a linting interface to build an in-house TypeScript code editor
- Streamlined the MongoDB triggers UI using React, boosting user efficiency and driving higher adoption rates
- Implemented state management using Redux across MongoDB App and Data Services improving performance

Advanced Micro Devices, Inc.

September 2023 – May 2024

Software Engineer Intern - Client APU

Austin, TX

- Architected silicon testing APIs for the next generation of AMD processors using Java, Python, Artifactory
- Migrated experimental data pipelines to fit new product architecture using Java, doubling data throughput
- Automated the scheduling of overnight electronics tests using Spring, improving resource utilization by 900%
- Owned and maintained a test program validation module that reduced test time by up to 20% in production

HP Inc.

June 2023 – September 2023

Software Engineer Intern - PageWide Press

Corvallis, OR

- Configured Grafana dashboards to monitor firmware resources and logs for and HP Inc. software and VMs
- Designed REST APIs with Flask to reboot software upon Grafana alerts, eliminating application downtime
- Orchestrated automatic deployment of applications using Ansible, reducing human configuration error to 0%
- Set up Oracle Databases using SQL to automatically populate data warehouses with resource utilization data

Advanced Micro Devices, Inc.

January 2023 – May 2023

Software Engineer Intern - Client APU

Austin, TX

- Built automatic test equipment program validators, optimizing tests by 10% by removing broken workflows
- Added temperature controls to AVFS modules using Java, allowing for more comprehensive test coverage
- Created a full-stack web app using Flask, allowing engineers to override product specific configs for testing

RESEARCH

Kastner Research Group 

March 2024 – June 2024

Parallel Computing

San Diego, CA

- Open-sourced and migrated UCSD's Parallel Programming curriculum from NVIDIA CUDA to OpenCL
- Redesigned programming assignments using OpenCL, diversifying the architectures students can program on
- Benchmarked Qualcomm's Innovators Development Kit against UCSD platforms to develop parallel programs

MURO Lab 

September 2022 - January 2023

Robotics - Autonomous Vehicles

San Diego, CA

- Designed and implemented dynamic feedback control on a TurtleBot to do autonomous navigation using ROS
- Simulated obstacle environments and implemented avoidance algorithms using ultrasonic sensors and Python
- Collected localization data using an embedded Linux platform and ultrasonic sensors connected via USB