

Premkumar Giridhar

Software Developer • Student
Computer Science @ UCLA

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Education

University of California at Los Angeles

GPA: 4.00/4.00

Degree: B.S. Computer Science

Graduation Expected: Fall 2024

Coursework: Software Construction, Comp Organization, Secure Comp Systems, Intro to Comp Sci I & II

Experience

NASA Jet Propulsion Laboratory, *Software Engineering Intern* June 2022 – Present

Goal: To modernize an internal lab inspection process and facilitate/optimize analytics and reporting.

- Identified flaws and inefficiencies in existing system and outlined various solutions
- Designed UI wireframes with Figma, presented to 6 different users, incorporated feedback
- Wrote Python program to scan multiple PDF forms and store inputs in MySQL database
- Implemented web portal in Python Django to schedule audits, generate graphs, and report results
- Reduced auditors' workloads by 75% by automating and eliminating redundant tasks

Nize Systems, *Co-Founder*

August 2018 – May 2022

Goal: To create a system to automate attendance via RFID card scanning devices in classrooms.

- Designed and implemented RFID scanner in Python, optimized for various types of hardware
- Developed scanner UI and web dashboard with Vue.js and mobile dashboard in Flutter
- Maintained high performance while reducing costs to undercut competitors' prices by over \$6,000
- Installed system in classrooms, received Tri-Valley Dreammakers and Risktakers award (2022)

ACM TeachLA, *Training Director and Project Manager*

January 2022 – Present

Goal: To develop tools that help introduce children to computer science and software engineering.

- Designed a "learning lab" (interactive demo/teaching utility) for Python Turtle library
- Managed developer team by conducting code reviews, assigning tickets, and handling logistics
- Ran workshop teaching web accessibility and SEO to 30+ attendees

Projects

Bay Area COVID-19 Tracker, *Developer*

March 2020 – April 2020

- Created UI using HTML/CSS for live COVID-19 tracker used by over 10,000 unique visitors
- Built web scraper in Python to gather and process COVID-19 case data from 9 counties
- Implemented backend in Express.js to query data in MongoDB, generate graphs of COVID spread
- Parsed Google News RSS feeds for COVID-related news to display live news on site homepage

IEEE Micromouse, *General Member*

September 2021 – May 2022

- Wrote sensor and maze-solving code in C to win 3rd place in All-American Micromouse Comp.

LoRax, *Developer*

January 2022

- Designed and co-developed web application and physical sensor device to monitor soil health
- Won 3rd place prize out of ~150 participants in IDEAHacks 2022 (hardware hackathon)

Skills

Front-end HTML • CSS • JS • Vue.js • React • Sass • Flutter

Back-end Node.js • Express.js • Python • Flask • FastAPI • Django • MongoDB • MySQL • MariaDB

Analytics Python • matplotlib

Miscellaneous C++ • C • Java • Bash • Git • Postman • CI/CD • Jira