Kaushal Marimuthu

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EDUCATION

The University of California at Davis: B.S. Computer Science and Engineering, GPA: 3.98/4.0 **Grad: Dec 2025**

Relevant Courses: Data Structures & Abstraction, Discrete Mathematics, Algorithm Design & Analysis, Machine Dependent Programming, Intro to Artificial Intelligence, Probability and Statistical Analysis for CS

Honors: Dean's List

WORK EXPERIENCE

Software Engineer Intern | Brain Racers (startup) | *React.ts, PHP, REST APIs* **July 2023 – Sept 2023**
- Revamped structure of **MySQL** & Redis database framework containing 10000+ data points for 25% quicker access of user data queried with PHP Laravel.
- Created 3 REST API services with 10+ additional endpoints, enhancing real-time data retrieval; documented APIs functionality to streamline frontend development by 3x
- **Integrated APIs** into 4 existing React TypeScript components, facilitating dynamic dashboard usage.
- Worked with the design team to design and implement 5+ reusable new elements in **React.ts** and CSS, and added them to the existing product, including a line graph showing user progress.

Data Analyst Intern | DigitalMain (startup) | *Git, Data Analysis, Python* **June 2022 – Aug 2022**
- Wrote 10 robust **Python** scripts using Selenium Webdriver and BeautifulSoup to conduct in-depth analysis of 6 cybersecurity forums, leveraging 15,000+ scraped data points to identify 100+ keywords, trends, and FAQs to optimize data handling processes by 7x.
- Collaborated with DigitalMain's product manager to devise a comprehensive project blueprint, integrating **machine learning models** for efficient data organization.

LEADERSHIP

Developer | UC Davis CodeLab | *Next.ts, TailwindCSS, MongoDB* **Oct 2023 – Present**
- Worked on the Client team, **consulting** for the company BillionMinds, building 2 dashboards using Next.ts and TailwindCSS for BillionMinds and its clients to manage and view their company's data.
- Aggregated data from 4 APIs into a **MongoDB** database with **AWS Lambda Serverless functions** and queried it from the frontend to populate the dashboard and charts.
- Developed 3 low fidelity iterations in Next.ts from the ground up, and worked continuously with designers and BillionMinds to combine and advance it to a single, functioning, high fidelity product.

PROJECTS

Virtual Tour Guide | Mar 2023 – Present
- Designed an AI-powered tour guide and spent 100+ hours developing both a **React & Node** website and **Swift** App using Google Maps API and **OpenAI** API's davinci model.
- Integrated **MongoDB** database for users to have accounts storing locations visited, using Express and Node.

TomatoClassify | May 2023 – Sep 2023
- Built a Sequential **Tensorflow Keras CNN** model to classify images of tomato plant leaves into 10 classes of diseases. The model was trained on 16000+ images and achieves **93% validation/test accuracy**.
- Deployed the model using **Flask** and built a frontend for it with **React**.

SKILLS

Languages/Frameworks: Java, C++, C, Python, JavaScript, TypeScript, React, Next, MongoDB, Node, HTML, CSS, PHP, MySQL, Swift, Objective-C, Dart, Django, Flask

Tools/Technologies: PyTorch, Tensorflow, Keras, OpenAI, Tailwind CSS, Postman, Docker, VS Code, REST APIs, VisionOS, AWS, Algorithmic Programming, Data Analysis, cloud computing, ci/cd, Kubernetes