

Prajwal Sharma

<https://prazwal.vercel.app> • Cerritos CA, 90703 • +1-562-440-6266 • itspraz81@gmail.com

Education

California State University Long Beach

Long beach, CA

Bachelor of Science in Computer Science

Relevant coursework: Computer Science Theory, Object-Oriented Programming, Data Structures & Algorithms, Databases, Software Engineering, Operating Systems

Experience

Better Grades Effortlessly | Founder

August 2021 - December 2023

- Built a scalable peer-to-peer tutoring website using **Next.js**, **AWS Lambda**, and **PostgreSQL**, enabling efficient real-time interactions and handling thousands of concurrent users.
- **Scaled to 6,000 monthly active users and 50 tutors** – Grew the user base while maintaining platform performance and a 95% user satisfaction rate.
- **Achieved over \$120,000 in revenue within the first year** – Successfully launched and monetized the platform, reaching impressive financial milestones early on.
- **Optimized platform performance with GraphQL and AWS services** – Reduced load times by 30% using GraphQL for data fetching and AWS S3/CloudFront for fast, global content delivery.

Projects

ASL Bridgify | Won 25K Grand Prize at UC Berkeley Hackathon 2024

Jun 2024 - Present

- Developed an innovative platform for learning American Sign Language (ASL) with real-time feedback and personalized learning paths, leveraging AI-driven modules.
- Integrated models with Google Search API and OpenAI API for **Retrieval-Augmented Generation (RAG)**, enhancing the user experience with interactive ASL-specific advice.
- Built the frontend using Next.js and TailwindCSS, connecting it to a Flask backend, and utilized PyTorch, **TensorFlow**, and **Keras** to train large language models (LLMs) on **Intel Developer Cloud**.
- Overcame significant technical challenges in training LLMs and implementing **hand pose estimation** using MediaPipe and TensorFlow, resulting in the successful launch of a unique educational tool.

MadMolecool | Won 1st Place at the UC Davis Hackathon 2024

Apr 2024

- Developed an LLM-powered electronic lab notebook for molecular biologists, featuring a finetuned LLM lab partner and recordkeeping aligned with the **Design-Build-Test-Learn workflow**.
- Implemented autogenerated summaries using **Gemini API** and integrated a chemical encyclopedia to support biochemical research and enhance user experience.
- Utilized datasets from web-scraped journal articles and public datasets such as PubMedQA and BiosQA for effective LLM fine-tuning.
- Overcame technical challenges by optimizing LLMs with **BF16 data type**, **INT8 quantization**, and **openVINO** for Intel CPU architecture, improving performance and efficiency.

Awards and Honors

2024 UC Berkeley AI Hackathon: \$25K Grand Prize for "Best AI for Good"

2024 UC Davis Hackathon: 1st Place, \$2,500 + ThinkPad Laptop

Intel Student Ambassador: Recognized for AI innovations, including the award-winning ASL Bridgify project.

Additional

Language Skills: Python, JavaScript, TypeScript, Java, C++, HTML, SQL, Go

Technical Skills: React.js, Next.js, TensorFlow, PyTorch, Keras, Flask, Apollo GraphQL, Express.js

Databases: MongoDB, Firebase, Cloud Firestore, Redis, PostgreSQL, Convex

Tools: GitHub, Vercel, AWS, Google API, AWS Lambda, Postman, Beautiful Soup, Tailwind CSS, Supabase, Node.js, Docker