Harsh Karia

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EDUCATION

University of California,Davis **Davis, CA**
Bachelor of Science, Computer Science and Engineering, GPA: 3.71 **September 2022 - June 2026**
Relevant Coursework: Data Structures & Algorithms, Python Programming, Algorithm Design and Analysis, Computer Architecture, Linear Algebra, Differential Equations, UNIX Development, Deep Learning by Andrew Ng, Akuna Capital Options 101
Upcoming Coursework: Probability and Statistics, Intro to Artificial Intelligence, Machine Learning Modeling, Physics
Skills: Python, React, C/C++, JavaScript, HTML, CSS, PyTorch, Pandas, Time Series Analysis, Research, Machine Learning, Git, Linux, Docker
Interests: Artificial Intelligence, Deep Learning, Time-Series Research, Penetration Testing, Ethical Hacking, Information Security, Cybersecurity

WORK EXPERIENCE

Sustainable Multi-Campus Air Rapid Transport (SMART) **November 2023 - May 2024**
Undergraduate Researcher

- **Led** software planning and scheduling team of **4** for UC Davis' team in CITRIS Aviation Competition competing with UC Berkeley, UCSC and UCM, under guidance of Prof. Camli Badrya
- Developed prototypes of multifunctional application that allows passengers and vehicle operators to seamlessly interact with new UC campus air mobility system and handling scheduling **algorithms using Python** and **JavaScript**
- Won **Lenovo** awards for Innovation and Sustainability at NASA-UC Summit held at **NASA Ames Research** Center

OurDate **December 2023 - January 2024**
AI Prompt Engineering Intern

- Collaborated with CEO and CTO to understand current AI usage, prompt results and processing times and led software team to design and test various prompts and AI models
- Improved time to final result by 200% by reducing number of queries and edits to prompt required to reach high-level date plan output by AI model

American Wild Horse Campaign **June 2023 - September 2023**
Software Engineering Intern

- Led mobile application development from ground up using **React native** and **JavaScript** to handle data gathering for nonprofit and launched app in App Store
- Prototyped and implemented user-facing screens and integrated object **detection models with 95%** accuracy to identify horses in images

SchedGo (Edtech Startup) **November 2022 - March 2023**
Software Engineering Intern

- Programmed meeting type display to allow students to optimize schedules based on class times using **TypeScript** and **React.js**
- Worked on intuitive design and integration of import and export of schedules to improve app functionality for **2500+** monthly users from **4** universities

Projects

Quizzical

- Built an all-in-one study tool, allowing students to upload lecture notes, recordings, and slideshows and get custom notes and flashcards to help in their exam preparation
- Integrated Together.AI's Llama-2-70B model and OpenAI's Whisper machine learning models in app using Python and JavaScript

NeuroTech

- Created brainwave authentication system using EEG hardware from OpenBCI, which allows personalized access in high-security applications through verification of individualized brain waves and facial movement sequence
- Collected and cleaned data in house, using Brainflow and MNE libraries and created 3 custom machine learning models for accurate recognition of brain wave sequence