Hiral Arora

530-979-7425 | hiral.arora.1418@gmail.com | linkedin.com/in/hiral-arora-519046240 | github.com/hir-al-14

EDUCATION

University of California, Davis — **Davis, CA**

Bachelors of Science in Computer Science and Engineering, Minor in Economics — **Sep 2024 – Jun 2028 / GPA: 3.693**

Dean's Honors List- Winter (2025), Spring (2025)

Relevant Coursework: Software Development & OOP, Computer Org. & Machine-Dependent Programming, Data Structures & Algorithms, Algorithm Design & Analysis

Somerville School Noida — **Noida, India**

Grade 12(CBSE) – Year of Completion (2024) – GPA 3.68(92%)

Grade 10(CBSE) – Year of Completion (2022) – GPA 3.84(96%)

EXPERIENCE

AI / ML Intern — **Jun 2025 – Sep 2025**

Infinite Computer Solutions — ***Noida, India***

- Optimized the recommendation system for TATA play (an OTT platform) leveraging **Bayesian hyperparameter tuning agents** to optimize user engagement metrics and recalibrate model weighting in real time.
- Building a **dynamic auto tuning for LightFM**, **different fallback for different rail's recommendation** strategy selector.
- Working on a **dynamic TTL generator** for redis based caches, and a **"Because you watched X, here's Y"** type of functionality.

AI Research Intern — **Jun 2025 – Sep 2025**

India Today — ***Noida, India***

- Utilized India today's vast news dataset and used **Ollama** to form **embeddings** and stored them in a **pgvector using PostgreSQL**, formed a news chatbot using **langchain** that utilizes **KNN** to give the **top closest new articles and content relevant** to the question asked.
- Formed a **news recommendation system** that uses **Bayesian Tuning** to form preference scores.
- Used **llama3 model** to expand on user preference by analyzing important words and news description.

Director of Technology — **Jun 2023 – Present**

Project Neurova — ***Hybrid***

- Overseeing the technology department, managed 10 members and worked with them to plan and build the project's website.
- Built a counselor-style mental health chatbot using **LangChain**, integrating a third party Mental health content API

LIDAR Beginner Intern — **Sep 2022 – Nov 2023**

Sai Infotech Systems Ltd. (SISL) — ***Noida, India***

- Worked under mentors on **LIDAR projects**, learned about LIDAR fundamentals and its **geospatial information** systems application developed by SISL.

PROJECTS

Self-Defense Learning System (In Progress)

Python, MediaPipe, OpenCV, FastAPI, React.js, PostgreSQL, Docker

- Developing a real-time self-defense training tool using **MediaPipe** for pose detection and **OpenCV** for video analysis.
- Implementing pose matching with **live feedback and correction guidance**, using **FastAPI**, **WebSockets**, and **TensorFlow**.
- Building a full-stack system with **React.js** frontend and **PostgreSQL** backend, containerized with **Docker**.

SKILL SCALAR @ Google Developer Student Club UC Davis

FastAPI, React.js, BeautifulSoup, LangChain, OpenRouter AI, MediaPipe, PostgreSQL

- Led a team of five as **Project Manager** and **won Best Technical Project** at the Mid-Year Project Showcase.
- Built a web app that **matches resumes with job listings** scraped from platforms like LinkedIn, Indeed, Google, etc. using **BeautifulSoup**.
- Provided **course recommendations to bridge skill gaps** via resume analysis, using **OpenRouter AI prompts** and a **LangChain** chatbot.
- Linked frontend and backend using **FastAPI**, and implemented **pose detection with MediaPipe** (ongoing) to suggest interview attire.

Diabetes Risk Prediction @ AI Student Collective UC Davis

Python, Scikit-learn, React.js, Random Forest, Logistic Regression, SVM

- Developed a machine learning model to predict health risk based on key health indicators like blood pressure, insulin levels, and BMI.
- Trained and evaluated models using **Random Forest**, **Logistic Regression**, and **SVM** for accurate risk classification.
- Developed a **frontend using React** for real-time health risk assessment based on user inputs.

DO-GOODING

React.js, Node.js, MongoDB, Google Maps API

- Developed a ReactJS web application that facilitates item-based donations by linking 200+ donors with recipients from 4 NGOs.
- Incorporated location-based matching to enable effective distribution of consumables, stationery, and apparel.
- Used MongoDB and an integrated Google Maps API for proximity filtering, real-time updates and scalable performance were guaranteed.

CLUBS

- Google Developer Student Club @ UC Davis (Oct 2024 – Present)
- #Include @ UC Davis (Jan 2025 – Jun 2025)
- AI Student Collective @ UC Davis (Sep 2024 – Dec 2024)
- Void Club @ Somerville School Noida (Apr 2022 – Dec 2023)

TECHNICAL SKILLS

Languages: C++, C, Python, JavaScript, TypeScript, HTML/CSS, Assembly, PostgreSQL, MySQL

Frameworks: React.js, React Native, Node.js, FastAPI, Next.js

Developer Tools: Git, GitHub, Docker, MongoDB, Vercel(deployment), Jupyter Notebook, VS Code, Linux, DBeaver, RStudio

Libraries: Seaborn, BeautifulSoup, SciKit-Learn, OpenCV, LightFM, Hugging Face

AI & Agentic Tools: LangChain, Ollama, LightFM, LLM development & training, vector embedding (pgvector), Letta AI, Vapi