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EDUCATION

University of California, Irvine

B.S. Degree in Computer Science and Engineering - **GPA 3.9** - Listed on the **Dean's Honor List** for all 5 quarters : Graduating class June 2025

Hong Kong International School, Hong Kong

High School Diploma. Honors in Physics and Mathematics.(**GPA 3.69**); Advanced Placement Scholar.

WORK EXPERIENCE

UCI Rocket Project : University of California-Irvine, California. September 2022 - present

Avionics Subteam

- Launched UCI's first liquid fuel bi-propellant rocket using industry-leading propulsion technologies
- Ported control system code to a newer iteration of the hardware and collaborated with the board designers to make improvements and implement a closed loop control system for the rocket.
- Deployed grafana and postgresql as the monitoring system during testing of the rocket.

IEEE Micromouse Project : University of California, Irvine - Irvine, California. October 2021 - June 2022

Hardware Subteam

- Assembled the PCB for the Micromouse including soldering and testing electronic components.
- Wrote the C++ code for teensy 4.0 MCU to control the robot in order for the robot to move
- Funded by the UCI Undergraduate Research Opportunities Program

PERSONAL PROJECTS

Live graphing and analysis system: March 2023 - May 2023

Language: Go, SQL, JavaScript, HTML, CSS

A system capable of incrementally updating a graph based on real-time data collected from sensors and performing analysis to provide more system insights. The updates are pushed to the browser via WebSocket.

- Ping-Pong and reconnection with exponential back-off system to ensure server liveness.
- Joint development of frontend and backend to ensure feature parity and verifying functionality

Implementation of ChiDB didactic database: August 2022 - Present

Language: C++, C

Following the assignments published by University of Chicago in order to create a sqlite-like database.

- Storage of data to disks, the concepts involved in paging data in order to access large databases.
- Issues involved in serialization like endianness, variant formats.

OpenGL based graphics rendering: June 2021 - September 2021

- Major concepts in C++ like RAII, Templates.
- The OpenGL rendering mechanisms and mathematics to generate 3D objects

SKILLS

Languages: Fluent in English, Hindi, Gujarati and Marathi

Programming Languages: C++, Python, Java, Haskell

Software Tools: Git, numpy, ansible

Manufacturing Skills: 3D Printing, Soldering, Various Woodshop Machinery.

PERSONAL DETAILS

Citizen : India

Visa : Singapore : Dependent Visa; **US :** Student Visa

