Vikram Krishna

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EDUCATION

Harvey Mudd College, Claremont CA   Expected May 2026
B.S. Engineering and Computer Science | GPA: 3.85

Relevant Coursework

Advanced Problems in Engineering, Digital Electronics & Computer Engineering, Engineering Systems, Experimental Engineering, Probability & Statistics for Engineers
Data Structures, Computability & Logic, Programming Practicum, Discrete Mathematics
Applied Mathematics for Engineering, Linear Algebra, Single & Multivariable Calculus

Awards and Achievements

Recipient of the Harvey S. Mudd Merit Scholarship

COMPUTER SKILLS

Programming: Python, SQL, Java, C++, Go, Swift
Software: MATLAB, SOLIDWORKS, Keras, PyTorch, Selenium
Technologies: NB-IoT, LoRaWAN, AWS, Grafana, Linux, Computer Vision, NLP, Git
Fields: Machine Learning, Data Science, Backend Development, Automation, System Administration

WORK EXPERIENCE

Researcher, HMC Engineering Department, Claremont CA   August 2022-Present
- Built software to perform Particle Image Velocimetry (PIV) on high-speed camera images to analyze fluid flow with 91% efficacy
- Ran validation experiments to evaluate speed and accuracy of software

Data Scientist, AirGuard Industries, Hong Kong   June 2021-Present
- Set up and maintain Linux Servers and SQL databases to store over 100,000 air quality readings
- Developed sensor infrastructure to measure and collect data from NB-IoT and LoRaWAN sensors
- Created various data visualizations including dashboards and heatmaps to report and monitor air safety of over 60 clients
- Formulated and developed machine learning-based early warning systems for indoor air quality to improve detection by 85%

Machine Learning Engineer, Vuzec, Hong Kong   June 2021-August 2021
- Analyzed big data and used various statistical analysis methods to create a revenue prediction model for artists' new releases with 92% accuracy
- Used users' listening history to make a prediction generation algorithm to suggest new music they might like

PROJECTS

Eye Detection and Tracking   January 2023-May 2023
- Used dlib and Haar Cascade models to isolate the eye for further processing and analysis
- Implemented high-efficiency neural networks to track pupil location and blinks as a means of controlling accessible pointer devices and other direction-based movements
- Improved resource-allocation to enable the model to run on low-cost low-power devices

Automated Recyclable Waste Sorter   August 2021-May 2022
- Wrote numerous web scrapers to collect over 10,000 images to develop custom datasets used to train various models
- Trained numerous Convolutional Neural Networks to recognize and classify recyclable waste with over 95% accuracy
- Built a low-cost hardware implementation for this model, enabling automatic recycling sorting at my high school