Aaryan Agrawal

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EDUCATION

University of California, San Diego | B.S. in Data Science   Expected Graduation June 2024
- GPA: 3.93/4.0
- Coursework: Intro to Data Science, Data Structures & Algorithms, Calculus, Linear Algebra, Statistics, Discrete Math

WORK EXPERIENCE

Lockheed Martin Solar and Astrophysics Lab   September 2020 – July 2021
IRIS Data Analyst | Palo Alto, CA
- Investigated solar satellite data from the Interface Region Imaging Spectrograph
- Developed sunspot detection algorithm and K-Means clustering for atmospheric conditions
- Generated comprehensive dataset of sunspot atmospheres and related magnetic fields

Castlight Health   June 2020 – July 2020
Software Engineering Intern | San Francisco, CA
- Used topic modeling (LDA) to group and understand user survey comments
- Identified easily solvable common complaint, communicated with product managers
- Analyzed and graphed user search database to research trends and offer improved results

Castlight Health   July 2019 – August 2019
Software Engineering Intern | San Francisco, CA
- Employed open-source tools to generate relational diagrams of large database environments
- Deployed Bash scripts to re-generate and host diagrams on schema changes
- Implemented Python and SQL tooling to automatically fetch and graph monitoring routines

EXTRACURRICULARS

Triton Robotics Team   September 2021 – Present
Computer Vision Team | La Jolla, CA
- Created OpenCV pipeline for detecting armor modules on spinning goal piece
- Predicted future position of targets with Kalman Filters for accurate robot aiming
- Trained YOLOv4 neural network to track robots on field and autonomously shoot them

Yonder Dynamics   September 2021 – Present
Software Team | La Jolla, CA
- Competed in NASA University Rover Competition, placed top 32 and made finals
- Designed and simulated obstacle avoidance algorithm using stereo cameras with ROS Gazebo
- Developed offline map location selector on front-end React website and communicated to rover

PROJECTS

GMK Price Tracker (https://gmk.aaryan.dev/ | Source)   Summer 2021
- Scraped GMK keycap aftermarket prices from Reddit posts and uploaded data to Firebase
- Built React website to dynamically show various product prices over time

SKILLS

Python, Java, JavaScript, SQL, NoSQL, Data Analysis, Web Scraping, Computer Vision

pandas, Matplotlib, OpenCV, scikit-learn, TensorFlow, Gensim, React, Git