Aaryan Agrawal

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EDUCATION

University of California, San Diego | B.S. in Data Science   Expected Graduation June 2025
- GPA: 3.9/4.0
- Coursework: Data Structures and Algorithms, Statistics, Calculus, Discrete Math, Databases, Scalable Systems, Data Visualization, Advanced Machine Learning, Data Mining, Deep Learning, Natural Language Processing

WORK EXPERIENCE

Amazon   June 2023 – September 2023
Software Development Engineer Intern | Seattle, WA
- Architected and implemented feature enabling multiport Virtual IP support for AWS load balancer migration tool
- Modified every component of tool to support over 4000 new customers, automating 40 years of manual dev work
- Leveraged AWS Lambda, Step Functions, DynamoDB, S3 for scalable serverless backend, React for frontend

Sift   July 2022 – September 2022
Software Engineering Intern | San Francisco, CA
- Built end-to-end data pipeline with Kafka, Flink, and BigTable to create real-time ML features for fraud prevention
- Created dataset and analyzed IP to Geo mapping correctness, determined vendor with best possible accuracy
- Improved JUnit testing suite using embedded tools for full integration tests, reaching package code coverage of 95%

Lockheed Martin Solar and Astrophysics Lab   September 2020 – July 2021
IRIS Data Analyst | Palo Alto, CA
- Developed Python sunspot clustering algorithm to group and simplify over 500k unique data points into 256 groups
- Generated comprehensive dataset of sun emission spectra to improve understanding of sunspot behavior
- Published paper as second author releasing dataset to public, presented work at an international satellite conference

Castlight Health   June 2020 – July 2020
Software Engineering Intern | San Francisco, CA
- Used topic modeling to group and understand 100k user survey comments, identifying key areas for improvement
- Found common complaint in 30% of comments, communicated with product team on prioritization and resolution
- Performed exploratory data analysis on MySQL user search database with 10m records to offer specialized results

EXTRACURRICULARS

Yonder Dynamics   September 2021 – Present
Software Lead | La Jolla, CA
- Competed in in-person international University Rover Competition, 5th place worldwide out of 100+ teams
- Managed software team of over 15 members, taught workshops on ROS programming, planned quarterly team goals
- Simulated obstacle avoidance algorithm using stereo cameras with ROS Gazebo, earned max points in competition
- Trained and optimized YOLO neural network for long-range AR tag detection, achieved over 90% accuracy

PROJECTS

GMK Price Tracker (https://gmk.aaryan.dev/)   Summer 2022
- Scraped and parsed GMK keycap aftermarket prices from over 10000 Reddit posts and uploaded data to Firebase
- Built fully interactive React website with fuzzy searching to dynamically show product prices and trends over time

SKILLS

Languages: Python, Java, C++, HTML/CSS, JavaScript, R, SQL, NoSQL

Tools: Git, AWS, GCP, React, Firebase, Kafka, Flink, Hadoop, Spark, Linux, Docker, ROS

Libraries: pandas, Matplotlib, OpenCV, scikit-learn, TensorFlow, PyTorch, Keras, NLTK