AASHMAN RASTOGI

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EDUCATION

University of California, Los Angeles (UCLA)   **Expected Graduation : June 2025**

B.S in Statistics and Data Science, Minor in Data Science Engineering

- **Major GPA :** 3.8 – Dean's Honors List(Fall 2021, Spring 2022, Fall 2022)
- **Relevant Coursework :** Data Structures and Algorithms, Machine Learning, Deep Learning, Statistical Finance (MPT and Options), Mathematical Modelling, Probability & Statistical Distributions, Prompt Engineering(DeepLearning.AI), Statistical Data Analysis,
- **Organizations :** Bruin AI, UCLA DataRes, Statistics Club, UCLA Career Center (Operations and Events Assistant)

TECHNICAL SKILLS

Programming Languages : Python (TensorFlow, Pytorch ,NumPy, Pandas, Scikit-Learn ,Seaborn), R (ggplot2, tiydr, dplyr), C++, SQL
AI/ML : CNN, LLMs (GPT, Claude, Llama), Prompt Engineering, Computer Vision, Huggingface, Langchain, SVM, Classification, Regression
Software/Tools : AWS (S3 ,EC2, ECS, ECR, CloudFormation, Bedrock, Textract), Docker, CI/CD, Microsoft suite, G-suite, Figma, MongoDB

WORK EXPERIENCE

Artifactual | Software and AI engineer   **Los Angeles, Apr 2024 – Present**

- Developed AI model for financial data extraction and flagging inaccuracies across different documents, leveraging Claude 3 with prompt engineering to achieve 40% improvement in model accuracy, implemented an ETL pipeline using AWS Textract, S3, OpenCV, and MongoDB
- Architected and implemented a scalable CI/CD pipeline using GitHub Actions, Docker, and AWS services (ECR, ECS, CloudFormation), automating the build, test, and deployment process for a Flask application, reducing deployment time by 50% and errors by 30%
- Streamlined file processing using AWS S3 and deployed a flask application on EC2 server, reducing processing time by 30% during testing
- Scraped broker data from 5 marketplaces, collecting 3500 entries using JavaScript (Puppeteer), implemented batch processing for efficiency

Deloitte | Data Science Intern   **New Delhi, Jun 2023 – Sept 2023**

- Spearheaded the development of a cutting-edge code generation and dataframe analysis model for a web service, achieving 90% accuracy, using prompt engineering, PandasAI and GPT-3.5-turbo, demonstrating technical prowess thru quick integration of AI into workflows
- Reduced development time by 40% by collaborating with the front-end team to create an MVP for OIC using streamlit for quick deployment
- Optimized computational efficiency and runtime by 30% by implementing custom functions for data cleaning and dataframe structuring

Infogain | Data Science Intern   **New Delhi, Dec 2022 – Jan 2023**

- Optimized the 'NAVIK – Marketing AI' application for on-prem execution using docker, leading to a 15% projected revenue growth for a telecom client in Ghana by improving operational efficiency and performance
- Accelerated development time by 60% by creating custom python test packages and enhancing proficiency in docker and git operations
- Acquired expertise in business analytics and machine learning strategies, including CLTV prediction, churn rate and customer retention

RESEARCH

Sensing and Infrastructure for Robotics (SRI) lab at UCLA | Undergraduate Research Assistant   **Los Angeles, Nov 2023 – Feb 2024**

- Trained an image segmentation model on Unet architecture in Pytorch to detect and classify building damages post disaster using CV2
- Reduced overfitting by 20% through structuring JSON data into a dataframe, image augmentation and optimized ETL pipeline process
- Experimenting with different encoder and decoder architectures to improve model based on F1 score and cross entropy loss metrics

PROJECTS

Quantitative Analysis, Statistical Portfolio Management based on MPT   **Los Angeles, Sep 2023 - Nov 2023**

- Analyzed 30 stocks for managing a $1,000,000 portfolio using data from yahoo finance based on Modern Portfolio Theory(MPT) Principles
- Utilized Black Scholes Merton Model for options pricing, analyzing Greeks and explored diverse risk mitigation strategies in options trading
- Developed a trading strategy with 50 Daily Moving Average (DMA) and 200 DMA to detect trends & ATR stop loss to identify reversal points

Credit Card Late Fee Prediction Model Based on Personal Characteristics   **Los Angeles, May 2023 - Jun 2023**

- Performed data cleaning, including label encoding and mapping and feature engineering eliminating non-contributory features in the model
- Optimized feature selection using variance threshold and SelectKBest methods, resulting in a 30% improvement in model accuracy
- Fine-tuned machine learning models such as Random Forest and KNN with hyperparameter optimization, achieving an accuracy of 0.7405

LEADERSHIP AND ACTIVITIES

Bruin AI, UCLA   **Los Angeles, Oct 2023 - Present**

Logistics Director, SoCal AI Responsibility Summit   *Jan 2024 – Apr 2024*

- Served as the board member, planning the inaugural summit, and developing the program itinerary, registering over 400 participants
- Led Logistics for the Summit, acting as the primary liaison for AI startups(Kindo.AI, Davante Systems and Hyperspace) and industry attendees
- Coordinated Venue Management, overseeing catering and Ackerman Ballroom layout to meet summit needs, ensuring seamless operations

Partnership Lead; AI innovation at Cisco   *Apr 2024 - Present*

- Led the inaugural event between Bruin AI and Cisco, cementing our partnership and managed all aspects from marketing to merchandising
- Facilitated a valuable learning experience for the Bruin AI and UCLA community with insights from Cisco's Lead Technical Solutions Engineer