Naveen Kumar Rajesh

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EDUCATION

University of California, Irvine *Sept 2023 - Dec 2024*
Master of Data Science
University of San Diego, Shiley-Marcos School of Engineering *Aug 2019 - May 2023*
B.S. Computer Science, cum laude

TECHNICAL SKILLS & CERTIFICATIONS

Programming Languages: Python, SQL, R, Java, Bash
Machine Learning: TensorFlow, PyTorch, skicit-learn
Cloud & MLOps: AWS EC2, AWS S3, AWS EKS, GCP BigQuery, GCP Vertex AI, GCP Dataflow, Looker Studio
DevOps & Tools: Docker, Spinnaker, Jenkins, Kubernetes, Spring Boot, Spring, Git, VS Code, Postman, Jira
Databases: PostgreSQL, MongoDB, MySQL, Neo4j, Cassandra
Certifications: **Professional Machine Learning Engineer** – Google Cloud Platform (October 2024)

PROFESSIONAL EXPERIENCE

CHAPMAN UNIVERSITY • Irvine, CA *Mar 2024 – Sept 2024*
Data Science Intern

- Managed and analyzed over 250 million records from prescription datasets such as CURES and IQVIA to extract, transform, and load data to assess opioid concentration in California, utilizing Python and SQL.
- Utilized hypothesis testing, regression, classification, and time series analysis using R and Python to create data visualizations that provided insights into addiction patterns for statistical reports.
- Identified trends and anomalies in data visualizations and statistical tests through EDA, while effectively communicating recommendations to non-technical stakeholders through clear and concise reports.
- Streamlined data processing by creating tailored DataFrames from large datasets, reducing SQL query execution times by 45% and improving ML model training efficiency by 30%.

ARMORY INC • San Diego, CA *July 2022 – Sept 2023*
Software Engineering Intern

- Collaborated in an Agile DevOps team to develop internal testing pipelines for Spinnaker, iteratively testing third-party software like Open Policy Agent, achieving a 25% improvement in testing effectiveness.
- Reduced pipeline execution times by 30% by configuring the metric monitoring service Prometheus with an Observability plugin, enhancing the monitoring and visualization of internal services.
- Automated data collection across 10 Amazon EKS clusters using Bash scripts, enabling real-time monitoring of pod deployments and reducing debugging times significantly.
- Achieved a 45% decrease in resource creation times by deploying Jenkins for continuous integration and Prometheus as global services in individual pods within an Amazon EKS cluster, ensuring continuous availability.

PROJECTS

ROI and Efficiency Assessment for Microsoft's Support Knowledge Base *Dec 2024*

- Collaborated with Microsoft to analyze 60,000 customer support cases, observing a 12% reduction in investigation time and a 65% decrease in clicks through the transition to a Single-Source Knowledge Base.
- Developed statistical models, including GLMs and EDA, to evaluate operational efficiency and customer satisfaction, providing data-driven recommendations to non-technical stakeholders to enhance Microsoft's knowledge base.

Speech Emotion Detection Using Neural Networks *Mar 2024*

- Attained 70% accuracy in developing an emotion detection system from speech audio data using TensorFlow to build a multi-layer convolutional neural network on the RAVDESS and CREMA datasets.
- Preprocessed and extracted key features from audio data by stretching and adding noise while also using zero crossing rate, MFCC, and root-mean-square value to identify emotional nuances in speech data.

Painting and Photograph Classification using Neural Networks *April 2023*

- Classified input images with over 75% accuracy by developing a Python application that utilizes ML algorithms, including perceptron and back propagation, to differentiate between photographs and realistic paintings.