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Hamsini Sankaran

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Aspiring Data/ML Scientist and Analyst with expertise in data engineering, machine learning, and data visualization.

Skills

Languages	Python, R, Scala
Web Dev/Frameworks	TensorFlow, Keras, Django, Flask, React JS, HTML, CSS
Data Analysis	Pandas, NumPy, librosa, Audio Feature analysis, Scipy, Excel
Big Data	Kakfa, Akka stream, Elastic Search, Spark, Hadoop, MapReduce, ETL
Database	Postgres, Redis, Mongo, Neo4j, SQL
Visualization	Matplotlib, Seaborn, Plotly, D3.js, Altair,Tableau, Grafana, Splunk, Amcharts, ggplot(R)
Cloud	AWS, GCP
Statistics/ML	Scikit-learn,Hypothesis Testing, Linear Regression, Logistic Regression, Decision Trees, Random Forest, Xgboost, KNN, SVM, DNN, CNN, GRU RNN, LSTM, Transfer Learning, NLP, PCA, SSD mobilenet
OS/Scripting	Linux, Bash
Containers/Orchestration	Docker, Kubernetes

Education

Master of Information and Data Science, GPA - 4/4 (Graduating in Fall 2023), *University of California, Berkeley* Jan 2023 - present
Relevant Courses: Machine Learning, Data Engineering, Statistics for Data Science, Data Visualization, NLP

Master of Science, Computer Engineering, GPA - 3.42/4, *San Jose State University* 2016–2018

Bachelor of Engineering, Electrical and Electronics, GPA - 3.90/4,*Anna University* 2010–2014

Data Science Projects

Bird Song Classification Using Neural Networks and Machine Learning UC Berkeley, CA **July 2023 – August 2023**

- Spearheaded the use of BirdCLEF 2023 Kaggle data for bird species classification and biodiversity monitoring.
- Employed audio augmentation to enhance model generalization and extract key features like MFCC, chroma etc for bird vocalizations.
- Explored machine learning models like logistic regression, random Forest, neural Networks, CNN, LSTM, GRU RNN and more.
- Achieved 95% training and 87% testing accuracy using GRU RNN with evaluation based on F1-score metrics.

Revolutionizing Acmet Gourmet Meal (AGM) Delivery with NoSQL Data Magic UC Berkeley, CA **July 2023 – August 2023**

- Led a transformative project at AGM, integrating NoSQL databases for innovative meal delivery solutions.
- Architected Neo4j, MongoDB, and Redis databases to support revolutionary meal delivery strategies.
- Utilized graph algorithms (page rank, community detection and closeness centrality) for optimizing BART delivery networks.
- Implemented customer recommendation systems with personalized route suggestions.

Big Budgets? Big Returns? - An Analysis of Film Industry UC Berkeley, CA **April 2023 – April 2023**

- Analyzed The Movie Database (TMDB) movie data for budget-revenue correlations and built regression models on a 30% subsample.
- Demonstrated proficiency in validating assumptions of large samples and classic linear models.
- Led the team and developed regression models to analyze movie revenue with different covariates like movie run time and vote count.
- Identified the best model based on adjusted R^2 and practical significance, showing potential for a 77.2% increase of revenue.

Work Experience

Software Engineer Walmart eCommerce, Sunnyvale, CA **January 2019–January 2023**

- Designed data-driven solutions using big data and streaming technologies to enhance the Walmart store ecosystem.
- Developed and executed complex SQL queries to uncover core infrastructure insights and correlate data.
- Collaborated with the infrastructure team to predict store networking equipment anomalies and built a scalable portal for 20K users.
- Designed microservices for store infrastructure incident resolution and utilized AIOps to detect and diagnose issues, improving MTTR.

Devops Fellow Engineer Aeris Communications,San Jose, CA **October 2018–December 2018**

- Designed and implemented tools for automating the deployment of IOT applications.
- Created automation to handle disk and memory log errors from Nagios and ELK stack.
- Analyzed server log messages and developed dashboard on Kibana.

Software Engineering Intern Konviv Inc, Berkeley, CA **May 2018–August 2018**

- Developed an AI-based financial management chatbot through K-Means clustering for customer transaction categorization.
- Worked on Bayesian network based recommendation engine to guide the customers for better financial decisions.

Deep Learning Research Assistant San Jose State University, CA **May 2017–August 2018**

- Contributed to UAV graffiti removal system development in San Jose, achieving 90% graffiti detection accuracy with SSD Mobilenet.
- Employed inception model to differentiate graffiti and non-graffiti images for drone classification.

Software Engineer Larsen & Infotech, India **July 2014–June 2016**

- Developed COBOL modules and SQL queries for online travel insurance and grew customer base by 80,000.
- Rectified the production defects and played a major role in improving the latency of the screen designs.

Awards

Employee Of The Month Award (June 2022): Awarded the best employee of the month for submitting a paper on "Proactive Incident Management leveraging AIOPS techniques" at the internal Walmart conference.