Sai Yeshwanth Mekala

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EDUCATION

University of Colorado Boulder, Boulder, Colorado, United States **August 2023 – May 2025**
Degree: Master of Science**; Major:** Data Science; **GPA:** 4/4

SASTRA Deemed University, Thanjavur, Tamil Nadu, India **June 2017 – July 2021**
Degree: Bachelor of Technology; **Major:** Information and Communication Technology; **GPA:** 8.3/10

PROFESSIONAL EXPERIENCE

Tata Consultancy Services, Hyderabad, India **July 2021 – June 2023**
Systems Engineer

- Collaborated with the Backend Team and created a Virtual Career Fair web page for Stevens Institute of Technology by applying HTML, CSS, JavaScript, and PHP skills, contributing to 50% of the Project.
- Guided interns in executing Broken Links Automation Testing for the course catalog page and eliminated broken links, yielding a 0% broken link rate.
- Maintained and monitored the Student Information System of Excelsior University using SQL, PL/SQL and Java Skills and gained 100% response and resolution time.
- Collaborated with the Manager and created Kanban board and Dashboards in Excel to showcase effectiveness, resulting in a 96% client satisfaction index.
- Accelerated the Knowledge Transfer process by 50% through the creation of Document of Understanding and Standard Operating Procedures (SOP).

PROJECTS

Heart Disease Identification from Patients' Social Posts, Machine Learning Solution on Spark

- Implemented advanced ML models in Pyspark on Cleveland Heart disease dataset, achieving an accuracy of 94.9% for the Random Forest Classifier through Hyperparameter tuning and K-fold cross validation.
- Expedited the processing of real-time data from Twitter Streaming API by integrating Apache Kafka and Apache Spark.
- Parsed the streamlined data into vectors and made predictions in real-time using the Random Forest Classifier.

Applying Dimensionality Reduction in Collaborative Filtering Recommender Systems.

- Developed Singular Value Decomposition (SVD) and Non-Negative Matrix Factorization (NMF) models on the Movie Lens 1M dataset to predict Top N movies for a specified user ID.
- Conducted model evaluation using cross-validation and Grid Search and achieved 0.87 RMSE for SVD.

Sports Retail Data Insights

- Conducted Time Series Analysis with ARIMA and developed an optimal model with (2,1,5) configuration to predict the operating profit.
- Applied Association Rule Mining (ARM) using the Apriori algorithm with minimum support of 50% and minimum confidence of 70% and generated frequently purchased item sets and associations.

PUBLICATIONS

Breast Cancer Detection Using Machine Learning

- Explored the Breast Cancer dataset using Exploratory Data Analysis and Implemented a high performing Logistic Regression model on Breast Cancer Wisconsin dataset with an accuracy of 99.3%.
- Collaborated with a professor and published the research work in the International Journal of Advanced Trends in Computer Science and Engineering and gained 24 citations highlighting impactful research.

AWARDS

Achieved On-the-Spot award for excellent client feedback March 2022

SKILLS

Programming: Python, R, Java, C++
Database: SQL, MySQL, Oracle, MongoDB
Data Visualization: Tableau, Power BI
Cloud: IBM Watson Studio, Google Cloud, AWS
IDE's: Jupyter Notebook, R Studio, VS Code, Eclipse
Languages: English, Telugu (Native), Hindi
Others: Hypothesis Testing, Apache Spark, Apache Kafka, Data Structures, Excel, Communication

INTERESTS

Machine Learning, Big Data Analytics