Adharsh Reddy C

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Education

- **International Institute of Information Technology(IIIT)** RK Valley, Andhra Pradesh
  Bachelor of Technology (BTech); CGPA: 8.14 *2017 – 2021*

Skills

Programming Languages: Python, SQL (MySQL, Oracle SQL), JavaScript
Machine Learning: Linear Regression, Logistic Regression, k-NN, Decision Trees, Random Forest, XGBoost, LightGBM SVM, Clustering (KMeans++, DBSCAN, GMM), Recommender Systems, Content-based and Collaborative filtering
Statistics and Data Analysis: Descriptive and Inferential Statistics, A/B Testing, PCA, t-SNE, Time Series Analysis
Libraries and Frameworks: Pandas, NumPy, Scikit-Learn, SciPy, Statsmodels, Matplotlib, Seaborn, Apache Spark
Tools and Platforms: Tableau, AWS (SageMaker, ECS), Docker, Flask, Jupyter Notebook, PyCharm, Git, MS Excel

Experience

- **ADP** Hyderabad, India
  Data Analyst *Dec 2022 - Present*
  - Part of implementation team, integrating data from multiple clients using ADP products. Conducted **exploratory data analysis (EDA)** on HCM and payroll datasets with **SQL** to ensure seamless **ETL** processes.
  - Developed and maintained **SQL** and **Python scripts** for data cleaning and automation, streamlining operations and ensuring data integrity for client onboarding.
  - Analyzed datasets with over **1 million records** to identify trends, generating insights for tailored product solutions; created impactful dashboards in **Tableau, Excel,** and **Python** to communicate findings to stakeholders.
  - Initiated projects exploring **machine learning** for predicting HR trends and process optimization, proactively integrating data science methods into **ETL** workflows.

- **Infosys** Bengaluru, India
  Data Analyst *Dec 2021 - September 2022*
  - Supported senior analysts in **extracting and transforming** financial data for regulatory compliance reporting, improving accuracy for Solvency Capital Ratio (SCR) calculations for an insurance client.
  - Crafted optimized SQL queries that enhanced data retrieval **efficiency by 30%** from client databases.
  - Designed and maintained financial **dashboards and reports using Tableau and Excel**, resulting in a 25% reduction in reporting time.

Projects

- **Loan Default Prediction for Credit Risk Mitigation**
  Regression, Feature Engineering, Scikit-learn, KFold, MinMaxScaler, Spearman correlation, Numpy, Matplotlib, Pandas
  - Developed a **logistic regression** model using a dataset of **350 Thousand** records to predict loan defaults, optimizing profitable loan approvals while minimizing Non-Performing Asset (NPA) risks.
  - Leveraged **Python**, **SMOTE** for handling class imbalance, and threshold tuning to enhance **precision-recall** balance.
  - Implemented feature engineering, **VIF-based multicollinearity reduction**, and optimized decision thresholds for improved model performance. Used **cross-validation** to ensure generalization and minimize overfitting.
  - Achieved **71% accuracy** with reduced false positives and assessed model performance using **ROC AUC Curve**, **F1 Score**, and **Confusion Matrix**. Project code available at: GitHub Repository.

- **Collaborative Filtering Recommender System for Movie Recommendations**
  Collaborative Filtering, Matrix Factorization, k-NN, Keras, Scikit-learn, Cosine Similarity, Data Preprocessing, Pandas
  - Built a **recommender engine** using **memory-based** (collaborative filtering) and **model-based** (matrix factorization) on a dataset of 1 Million records,approaches for personalized movie recommendations.
  - Created user and movie embeddings with **Cosine Similarity** and **Pearson Correlation** using **Nearest Neighbors** for item-user similarity scores.
  - Utilized **Keras** embedding layers to train matrix factorization models, exploring hyperparameters such as latent factors to enhance recommendation accuracy.
  - Evaluated model performance through **RMSE** (0.990) and **MAPE** (0.293) metrics, and provided movie recommendations by aggregating the weighted ratings of the top similar users. Project code: GitHub Repository.