

Adharsh Reddy C

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EDUCATION

- International Institute of Information Technology (IIIT)** 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 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) 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](#).