

RAGUL S

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🌐 LinkedIn | 🐙 GitHub

PROFILE

Aspiring Machine Learning Engineer with hands-on experience in developing predictive models and optimizing machine learning algorithms. Proficient in Python, SQL, and Power BI, with expertise in data preprocessing, feature engineering, hyperparameter tuning, and model deployment (AWS, GCP, Flask, FastAPI). Developed a customer churn prediction model with 85% accuracy and a sales forecasting model that improved demand prediction by 30%. Skilled in ML pipelines, cloud computing, ETL, and building interactive Power BI dashboards. Passionate about leveraging machine learning and AI to drive business growth and innovation.

PROJECTS

Customer Churn Prediction in Banking

- Built a classification-based machine learning model to predict customer churn with 85% accuracy, using Random Forest, XGBoost, and Logistic Regression.
- Applied feature engineering techniques to enhance predictive performance by 20%.
- Designed an automated data preprocessing pipeline to clean and transform 50,000+ customer records, reducing manual data handling by 40%.
- Evaluated model performance using ROC-AUC, precision-recall curves, and cross-validation techniques.
- Deployed the model using Flask API and improving accessibility by 40%.

Sales Demand Forecasting for a Retail Business

- Predict weekly sales trends with 85% accuracy.
- Analyzed historical sales data (100,000+ records) across multiple locations and product categories to identify key revenue drivers.
- Applied feature engineering techniques, such as lag variables and rolling window statistics, to improve prediction accuracy by 30%.
- Built an interactive Power BI dashboard with time sales insights, trend analysis, and demand forecasting, enabling data-driven decision-making.
- Automated data preprocessing and ETL pipeline using Python (Pandas, NumPy) and SQL, reducing manual data handling by 50%.
- Optimized model training time by 30% using hyperparameter tuning.

SKILLS

- **Programming & Scripting:** Python, SQL
- **Machine Learning:** Regression, Classification, Clustering, SVM, XGBoost, Random Forest
- **Data Analysis & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Power BI, Tableau
- **Feature Engineering & Data Cleaning:** Data Wrangling, Handling Missing Values, Outlier Detection
- **Model Deployment & Optimization:** Hyperparameter Tuning, Flask
- **Database Management:** MySQL

PROFESSIONAL

Data Science and Data Analytics with AI Course:

Taught a one-credit course on " Data Science and Data Analytics with AI Course " at People click Learning Institute in Coimbatore, covering supervised and unsupervised learning, neural networks, and NLP for threat detection.

Hands-on experience with Support Vector Machine (SVM) for classification, including data preprocessing and model building, showcasing proficiency in ML algorithm.

EDUCATION

Bachelor's Degree in Electrical & Electronics Engineering

Adithya Institute of Technology, Coimbatore

2020 – 2024

Certifications

" Data Science and Data Analytics with AI " – People Click Learning Institute

LANGUAGES

English, Tamil