

Rihaz Raheem

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Results-driven data professional with 4+ years of experience in analytics, machine learning, and data science. Skilled in Python and end-to-end ML development, including preprocessing, feature engineering, model training, and evaluation. Hands-on with Sentence Transformers, FAISS, TF-IDF, YOLOv8, and TensorFlow. Strong background delivering scalable, data-driven solutions across structured and unstructured datasets.

KEY SKILLS

Technical Skills: Python, Scikit-learn, TensorFlow, Flask, OpenCV, TF-IDF, Text Classification, SBERT, NLP, Semantic Search , Advanced Excel, Feature Engineering, Data Preprocessing, EDA (Exploratory Data Analysis), Model Evaluation, NumPy, Pandas

Other Skills: Basic HTML & CSS, Basic SQL, Git, Google Colab, MS Office

Soft Skills: Collaboration, Communication, Mentoring, Problem Solving

WORK EXPERIENCE

Scipy Technologies • Remote • 05/2025 - Present

Data Scientist

- Built and optimized end-to-end ML and deep learning models using Python, Scikit-learn, TensorFlow, and Keras, improving model performance and training stability across multiple classification and prediction tasks.
- Developed NLP systems for text classification and semantic similarity leveraging TF-IDF and Sentence-BERT (SBERT) embeddings, improving semantic relevance over traditional keyword-based approaches.
- Designed a semantic search and document retrieval system involving text extraction, chunking strategies, embedding generation, and fast similarity search using FAISS, enabling fast and scalable similarity-based retrieval.
- Performed comprehensive EDA, feature engineering, and data preprocessing on structured and unstructured datasets to improve model performance and interpretability.
- Evaluated models using business-relevant metrics (Precision, Recall, F1-score) and developed basic Flask applications for model integration and gained utilized SQLAlchemy for managing structured datasets.

District Industries Centre • Alappuzha • 04/2022 - 03/2025

Enterprise Development Executive

- Led enterprise development initiatives and conducted data-driven project evaluations that influenced funding and other decisions.
- Designed Excel dashboards and reports for performance tracking, budgeting, and strategy optimization.
- Achieved 100% target fulfillment across multiple development schemes through data-driven planning.

SMEG Edulabs • 10/2020 - 03/2022

Academic Assistant

- Conducted online technical sessions for BTech students covering Python, basic data analysis, and problem-solving techniques.
- Mentored students on academic and mini-projects, guiding data preprocessing, EDA, logic building, and result interpretation using Python.
- Assisted students in applying machine learning fundamentals (classification, regression, model evaluation) and provided structured feedback on code, reports, and presentations.

EduBridge India • 01/2020 - 06/2020

Trainer

- Trained 100+ students in data analysis and Excel-based numerical reasoning
- Delivered hands-on sessions using VLOOKUP, PivotTables, and conditional formulas.

EDUCATION

Master's in Signal Processing

Government Engineering College Barton Hill, Thiruvananthapuram (2017 – 2019)

Bachelor's in Electronics and Communication Engineering

College of Engineering and Management Punnapra, Alappuzha (2013 – 2017)

PROJECTS

Customer Churn Prediction: Built end-to-end ML models (Logistic Regression, Random Forest, XGBoost) with preprocessing pipelines, improving churn recall to 0.78 and ROC-AUC to 0.81.

Semantic Search Engine: Developed a vector-based search engine using Sentence Transformer embeddings (SBERT) and FAISS for fast similarity retrieval.

News Article Classification: Implemented news classification using TF-IDF and SBERT embeddings; compared traditional vs modern NLP approaches, achieving 98% accuracy.

Age & Gender Detection: Designed a custom CNN and enhanced it with MobileNetV2 transfer learning, reducing age MAE from 5.1 to 4.7 years and increasing gender prediction accuracy from 69% to 82%.

AI-Based Person Detection: Tracking & ID Tagging: Developed a real-time computer vision system for multi-person detection and tracking using YOLOv8 and DeepSORT.

CERTIFICATIONS

- PG Certificate in Entrepreneurship: Small Business Management – Digital University Kerala
- Business Analytics with Excel – Simplilearn
- Data Science and real-time project training on Learn to Build a Real Time Application for Emotional Detector– Null Class

LANGUAGE

- English (Excellent)
- Malayalam (Mother Tongue)