V Abarajithan

Ramanathapuram | abarajithan2005@gmail.com | +91 8825781789 | LinkedIn | GitHub

About me

I'm a passionate self-learner aiming to launch my career in the fields of Machine Learning, Data Science, and AI. With a strong foundation in core ML algorithms and an intermediate grasp of Deep Learning techniques, I've built practical projects like spam email detection and loan eligibility prediction to apply my knowledge in real-world scenarios. I bring hands-on experience with Python programming, problem-solving skills, and a constant drive to learn and grow in the evolving AI ecosystem. I'm eager to contribute to entry-level roles where I can apply my skills, collaborate with data-driven teams, and expand my impact in building intelligent systems.

Certificates & Achievements

- Advance Data Science- FITA ACADEMY MADURAI
  April 2025 – June 2025
  Topics covered:ML,STATS,SQL,PYTHON
- Organized one day Ai/Ml workshop in College
- Member of Student Service committee
- Led College Fest Organizing Committee - managed 200+ participants

Skills

Programming Language: Python

Machine Learning: All ML Models, Model Evaluation, SMOTE, Ensemble Methods, Collaborative Filtering

Natural Language Processing (NLP): Text Preprocessing, Tokenization, Stopword Removal, Lemmatization

Data Analysis & Visualization: Exploratory Data Analysis (EDA), Matplotlib, Seaborn, YData Profiling, NumPy

Libraries & Frameworks: Scikit-learn, spaCy, Pandas, Imbalanced-learn, LangChain, Hugging Face Transformers

AI/ML Architectures: Retrieval-Augmented Generation (RAG), Vector Databases, Embedding Models, LLaMA

Web Frameworks & Deployment: Streamlit, Flask

Tools: Jupyter Notebook, Git, GitHub

Projects

Medical Chatbot with Retrieval-Augmented Generation (RAG) github.com/ajan/medical-chatbot-rag

- The project implements a sophisticated medical chatbot using RAG architecture to provide contextually relevant and accurate medical information. The system combines vector embeddings for document retrieval with large language models for response generation, ensuring reliable healthcare assistance. The chatbot retrieves relevant medical documents from a curated knowledge base and generates context-aware responses, making it suitable for preliminary medical consultations and health information queries.
- Tools Used: Python, LangChain, Hugging Face Transformers, Vector Databases, Large Language Models, Natural Language Processing, Streamlit/Flask

Developed an anime recommendation system using LLaMA model for personalized content discovery and prediction github.com/ajan/anime-recommender

- The project implements an advanced anime recommendation system leveraging the LLaMA large language model for intelligent content prediction and user preference analysis. The system processes anime metadata, user ratings, and viewing patterns to generate personalized recommendations. It combines collaborative filtering techniques with the natural language understanding capabilities of LLaMA to provide contextually relevant anime suggestions based on plot descriptions, genres, and user behavior patterns.
- Tools Used: Python, LLaMA Model, Transformers, Pandas, NumPy, Scikit-learn, Natural Language Processing

Developed a customer churn prediction model to identify users likely to discontinue company services github.com/ajan/customer-churn

- The project implements a machine learning solution to predict customer churn behavior, helping businesses identify customers at risk of leaving their services. The model analyzes customer demographics, usage patterns, transaction history, and engagement metrics to classify whether a customer will continue using the company's services. The system includes comprehensive data preprocessing, feature engineering, model selection, and evaluation metrics to ensure accurate predictions for business decision-making.
- Tools Used: Python, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Machine Learning Algorithms, Data Visualization

Loan Eligibility Project github.com/ajan/loan

- The project includes data preprocessing, exploratory data analysis, and model training using logistic regression. It also features visualizations to understand feature distributions and correlations. The model helps automate loan approval decisions and is presented in a clean, well-documented Jupyter Notebook.
- Tools Used: Python, pandas, scikit-learn, matplotlib, seaborn, Jupyter Notebook

Laptop Price Prediction

github.com/ajan/Laptop-price

- The project includes a complete pipeline from data preprocessing and feature engineering to model training and evaluation. It applies encoding techniques, dimensionality reduction (PCA), and stacking ensemble learning to improve prediction accuracy.
- It explores multiple regression models including Linear Regression, Decision Tree, Random Forest, XGBoost, and SVR. A stacking ensemble with Lasso Regression as the meta-learner enhances performance.
- The final model predicts laptop prices based on specifications like processor, RAM, ROM, GPU, and OS. The project is structured in a clean, well-documented Jupyter Notebook with detailed EDA and performance metrics.
- Tools Used: Python, scikit-learn, XGBoost, pandas, matplotlib, seaborn, Jupyter Notebook

Education

The American college , BCA July 2022 - May 2025

- GPA: 8.1

D.D.Vinayagar Hr Sec School , Bio Maths June 2020 - March 2022

- PER: 75.5%

The Government School , Sholandur June 2015 - April 2020

- PER:81.5%