

Aftab Mallick

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Experienced AI/ML Engineer with a proven track record of developing advanced Machine Learning and Natural Language Processing (NLP) models to deliver impactful solutions. Proficient in TensorFlow, PyTorch, and other ML frameworks, with expertise in model deployment and MLOps practices. Skilled in utilizing data science techniques to solve complex problems.

SKILLS

Programming Languages: Python, Java, C, Javascript, R

Python Libraries: TensorFlow, Keras, PyTorch, Scikit-learn, Numpy, Pandas, Matplotlib, Seaborn, NLTK, Spacy

Deep Learning: Neural Networks, CNNs, RNNs, Transformers, BERT, GANs

Natural Language Processing: Text Representation, Language Modeling, Named Entity Recognition (NER), Attention Mechanisms

Machine Learning: Supervised/Unsupervised Learning, Classification & Regression, Decision Trees, Random Forest, Gradient Boosting, Time Series Analysis

MLOps : MLflow, Flask, FastApi, Dockers, AWS

Other Skills: HTML, CSS, SQL, Software Development, SDLC, OOP, Linux, Unix Scripting, Data Analysis, Artificial Intelligence, Communication, Collaboration, Scalability, Research and Development

PROJECTS

KIDNEY DISEASE CLASSIFICATION WITH CICD ON AWS [↗](#)

Apr 2024 - May 2024

- Utilized Kaggle's kidney image dataset to train a **VGG16 CNN model**, achieving **95%** accuracy.
- Implemented **MLflow** for experiment tracking and **DVC** for **Data Pipeline** and **ML pipeline** management.
- Developed **Flask** server for predictions with **CI/CD Pipeline** for deployment on **AWS EC2**.

RAG BASED QUESTION ANSWERING SYSTEM [↗](#)

Apr 2024 - Apr 2024

- Developed a **RAG** chain using OpenAI **GPT-3.5** turbo model and **Langchain** framework.
- Converted PDF/Website data to text and used **OpenAI embeddings** for vectorization.
- Implemented **cosine similarity** for user question answering.

End to End Bengaluru House Price Prediction Model [↗](#)

Mar 2024 - Mar 2024

- Engineered a machine learning model to predict house prices in Bengaluru with **89%** accuracy.
- Employed **Linear**, **Lasso** and **Decision Tree Regression** algorithms via **GridSearchCV** for **Hyperparameter Tuning**.
- Developed a web app using **Flask**, **HTML**, **CSS**, and **JavaScript** for price predictions.

CHATBOT FOR FOOD DELIVERY APPLICATION [↗](#)

Mar 2024 - Mar 2024

- Increased user engagement by **30%** with a **Dialogflow**-powered chatbot for food delivery.
- Achieved **60%** accuracy in food item recognition and reduced order processing time by **80%** with **FastAPI**.
- Managed order data efficiently through a **MySQL** database.

WORK EXPERIENCE

Business and Data Analytics Intern

Jul 2023 - Aug 2023

Ybi Foundation

Remote

- Engineered **Artificial Neural Network (ANN)** models achieving an average accuracy of **90%** in predicting telecom customer churn, resulting in a significant reduction in customer attrition rate and substantial revenue preservation.
- Analyzed financial news sentiment using **Random Forest** and **NLP** techniques, leading to a 15% increase in the accuracy of market trend predictions and providing actionable insights for investment decisions.

EDUCATION

Bachelor of Technology In Computer Science and Engineering (Data Science)

Sep 2020 - Jun 2024

MCKV Institute of Engineering

GPA: 8.96

Relevant Coursework:

- Machine Learning Techniques: Supervised/Unsupervised Learning, Deep Learning (CNN, RNN)
- Natural Language Processing, Computer Vision, Reinforcement Learning, Time Series Analysis

Tools & Frameworks:

- TensorFlow, PyTorch, Keras, Scikit-learn, Jupyter Notebook, AWS SageMaker, Google Cloud AI Platform, Microsoft Azure Machine Learning, Langchain, LLM, OpenAI GPT 3.5, GPT 4, Gemini, LLaMA 3

CERTIFICATIONS

Machine Learning & Data Science A-Z: Hands-on Python 2024 (Credential ID: UC-3b2ce377-1b20-4d48-af85-479dbd013cd1) May 2024

[↗](#) by Udemy

Mastering Time Series Forecasting with (Credential ID: UC-f029457b-527c-49f6-bae5-d465bae59ed2) [↗](#) by Udemy

Sep 2021