FASINTS

AI/ML Engineer

Profile Summary

Passionate and self-driven AI/ML Engineer with strong fundamentals in Machine Learning and Data Structures & Algorithms. Developed skills through dedicated self-learning, real-world projects, and hands-on problem-solving. Proficient in the complete machine learning lifecycle from data preprocessing and model training to deployment and validation. Strong in Python programming, Object-Oriented Programming, and collaborative development. Eager to work in a cross-functional team, contribute to impactful AI systems, and continuously stay updated with advancements in AI.

Technical Skills

- Programming: Python(Strong), JavaScript, SQL
- Core CS: Data Structures & Algorithms, Object-Oriented Programming (OOPs)
- AI/ML: Deep Learning, Computer Vision, Natural Language Processing, LLMs
- Frameworks & Tools: TensorFlow, Keras, PyTorch, OpenCV, Pandas, NumPy, Scikit-learn, HuggingFace Transformers, FAISS, MLflow, Roboflow
- Web Development: Flask, FastAPI, React.js
- Databases: MongoDB, MySQL, PostgreSQL
- DevOps & Deployment: AWS, GCP, Docker, Render
- Platforms: Google Colab, Jupyter Notebook, Git, GitHub, Kaggle

Projects

Research Question Answering with LLMs

<u>GitHub</u>

LangChain, HuggingFace Transformers, FAISS, Python

- Built an end-to-end pipeline that extracts unstructured news content from URLs and transforms it into searchable vector embeddings.
- Used FAISS for fast semantic search and integrated a Large Language Model (LLM) via LangChain for context-aware question answering.
- · Applied concepts of data pipelines, vectorization, and LLM orchestration in a real-world use case..

Retail Sales Forecasting Web App

<u>GitHub</u>

Python, AWS EC2, PM2 MLflow, Scikit-learn, FastAPI, React

- Developed a full-stack web application to predict daily retail sales, enabling inventory managers to reduce overstocking by 30%, using historical data and real-time forecasts.
- Achieved high model accuracy by training and evaluating multiple algorithms.
- live accessibility across devices by deploying the solution on AWS EC2 and using PM2 process manager.

Shoozy - Shoe Recommendation System

<u>GitHub</u>

Python, ML, Flask, React.js, Docker, Render

- Built a content-based recommendation system using TF-IDF vectorization on product metadata, enhancing product discovery across a catalog of 90+ footwear items.
- Achieved scalable deployment as measured by real-time API response on public access by containerizing the full-stack app with Docker and deploying it to Render.com with Flask and React.
- Implemented user-personalized filtering and sorting features (brand, gender, price, rating) on a cleaned dataset of 500+ shoe products, improving user experience for refined selection.

Education

Bachelor of Computer Application

2022-2025

MES Asmabi College, P. Vemballur

- Gained understanding of the Software Development Life Cycle (SDLC), including planning, designing, coding, testing, and deployment, with strong foundations in Data Structures and Algorithms.
- Familiar with various software development tools, networking, data transmission, and related technologies, applying them in real-world academic projects while strengthening skills in Mathematics, Statistics, and Probability.
- Demonstrated strong leadership, collaboration, and communication skills by coordinating academic events and successfully leading cross-functional academic project teams.