

Mumbai, MH, IN

tobaisfire.github.io
Tobaisfire

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Professional Summary

Innovative Python Developer and Data Science learner with experience in machine learning, data analysis, and python application development. Skilled in deriving actionable insights from complex datasets, creating scalable solutions, and deploying state-of-the-art machine learning models. Currently pursuing an M.S. in Computer Science with a focus on advanced data science and machine learning methodologies.

Core Competencies

Data Science Machine Learning & Al Data Mining & Analysis LLM Integration NLP & Computer Vision Linux

Web Scraping & Automation Programming Database Management Information retrieval

Technical Skills

Languages: Python, SQL, JavaScript, C++, Java

Frameworks: LangChain, Django, Flask, Streamlit, Gradio

Libraries: Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, Matplotlib, Seaborn, Selenium, Requests

Databases: MongoDB, Cassandra, Redis, HBase, MySQL

Tools: Git, GitLab, HuggingFace, Kaggle, VS Code, PyCharm, Anaconda, Jupyter, Docker

Professional Experience

University of Mumbai

Physics Department

Research Intern

Mar 2024 – June 2024

- Analyzed 20 years of Coronal Mass Ejections (CMEs) data from NASA WIND Database, uncovering critical patterns.
- Crafted robust Python scripts with Pyspedas, optimizing data extraction from WIND API and reducing processing time by 40%.
- Implemented advanced data cleaning algorithms with Pandas, resolving null datasets (CDF) and enhancing data integrity by 05%
- Managed version control and collaboration via GitHub, increasing team productivity by 30%.

Square Yards

Mumbai, MH, IN

Junior Software Developer

May 2022 - Jun 2023

- Automated data extraction and processing with Python requests and Selenium, cutting manual effort by 30% and improving processing speed by 40%.
- Developed and integrated AI chatbots using LangChain, Cohere embeddings, and OpenAI GPT-3.5, enhancing customer satisfaction by 25%.
- Migrated Cohere embeddings to vector databases (Pinecone and Weaviate), boosting data storage and retrieval efficiency by 30%.

Self-Employed

Freelance Python Developer

Feb 2022 - May 2022

- Fine-tuned machine learning models for various prediction and classification tasks, enhancing model accuracy by 15%.
- Delivered customized solutions for international clients, consistently meeting project milestones and exceeding 100% expectations.

Education

University of Mumbai

Master of Science in Computer Science

University of Mumbai

Bachelor of Science in Computer Science

Mumbai, MH, IN
Aug 2023 – Aug 2025 (Expected)
Mumbai, MH, IN
Jan 2018 – Mar 2021

Notable Projects

Multi-LLM Bot "Tobis":

- Created a sophisticated chatbot system integrating multiple LLMs (Llama3, Gemini, Phi 3) using Streamlit, LangChain, and various APIs.
- Implemented image generation capabilities using Stable Diffusion via Hugging Face API.
- Architected an interactive UI allowing seamless model switching and multi-modal output generation.
- Source Code

LLM-Conversational AI:

- Integrated LangChain with AI chatbot using Cohere embeddings and various LLMs (GPT-3.5, Llama, Gemini).
- Enhanced similarity search algorithms on vector databases for better query performance.
- Source Code

LoRA Fine-Tuned Diffusion Model:

- Fine-tuned Stable Diffusion model using LoRA technique, achieving superior image generation results with 30% reduced GPU consumption.
- Source Code

Certifications

Machine Learning Workshop, IIT Bombay Scientific Computing with Python, FreeCodeCamp.org Data Science 101 with Python