Murtaza Arif Lakhani

DOB: 04/06/2001

Portfolio website: https://www.murtaza-fluxin4thd.com/

Business Engineering student with expertise in data analysis and digital solutions.

Highly motivated and detail-oriented student with a strong foundation in Business engineering and computer science, seeking an internship opportunity. Keen to contribute to the team.

Contact

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Germany

Education

01/10/2022 - Present

Bachelors Business engineering
Technische Hochschule Würzburg-Schweinfurt

skills

- C++
- Python
- CI /CD
- HTMl & CSS
- SQL
- Statistical Analysis
- Data Visualization
- Stable Diffusion (AUTOMATIC1111, ComfyUI)
- Scikit-Learn
- Datamodeling
- Git
- Pytorch
- TensorFlow & Keras

Work experience

01/04/2020 – 30/06/2022

Reliance industries - Data Analyst

- *Developed a time-series forecasting model using Python, TensorFlow, and scikit-learn to predict equipment failures by analyzing sensor data (temperature, pressure, vibration).*
- *Achieved 92% accuracy in failure predictions, reducing unplanned downtime by 25% and saving $1.2M annually in maintenance costs.*
- *Built a clustering model (K-means, DBSCAN) using PySpark on a 10M+ customer dataset (purchase history, demographics). Deployed insights into a Tableau dashboard for the marketing team.*
- *Identified 5 high-value customer segments, driving a 15% increase in campaign conversion rates.*
- *Boosted annual revenue by $850K through targeted promotions.*
- *Designed an automated ETL pipeline using Apache Airflow and AWS Glue, reducing data cleaning time by 70%.*
- *Cut weekly report generation time from 12 hours to 3 hours.*
- *Enabled real-time inventory tracking, reducing stockouts by 18%.*
- *Trained an XGBoost classifier on user behavior data (call logs, data usage) to identify at-risk customers. Deployed the model via Flask API for real-time predictions.*
- *Predicted churn with 88% precision, retaining 50,000+ customers quarterly.*

Projects

AI-Assisted Design Pipeline Using Stable Diffusion & ComfyUI

- *Integrated Stable Diffusion v1.5 and SDXL into a modular ComfyUI pipeline to automate generation of moodboards and early-stage product concepts for the design team.*
- *Developed custom ComfyUI nodes to allow dynamic input from LLM-generated prompts and visual tags.*

Retrieval-Augmented Generation (RAG) Chatbot for University Data Integration

- Designed and developed a Retrieval-Augmented Generation (RAG) chatbot using the LangChain framework and JavaScript to enhance the capabilities of large language models (LLMs) for university data retrieval and response generation.
- Integrated the chatbot with AstraDB, which serves as a database for university information, including course details, timetables, faculty directories, and departmental frequently asked questions (FAQs).
- Developed a pipeline that seamlessly combines the retrieved knowledge with the natura language generation capabilities of LLMs such as GPT-4o by using an API to ensure fact-based and context-aware responses.
- Created an intuitive web-based user interface using JavaScript that allows students, faculty, and administrators to interact with the chatbot to receive university-related information and answers to their questions.

Prompt Engineering

Docker Kubernetes

Beginner JavaScript for WebDevelopment

Natural Language Processing: transformers, sentencetransformers, HuggingFace, spacy, & NLTK

Business Tools

Microsoft Word

SAP

Microsoft Excel

Creo

Asseco APplus

Blender

Autodesk Fusion 360

Gantt Chart

Power BI

Language

English

German B1

Financial Data Analysis and Portfolio Optimization

- Analyzed stock market data, including opening and closing prices of various assets, to evaluate portfolio performance using advanced statistical and quantitative techniques.
- Calculated key statistical metrics, such as the Sharpe ratio and Sortino ratio, to assess risk-adjusted returns and the portfolio's downside risk. This enabled more informed investment decisions, resulting in a stable portfolio with a 12% return.
- Conducted a Monte Carlo simulation to model results from a dummy portfolio and analyzed thousands of scenarios to determine optimal portfolio weights considering different market conditions.
- Used Python and financial libraries such as Pandas, NumPy, Matplotlib, and Scikit-learn to process, structure, analyze, and visualize stock market data to gain valuable insights.
- Applied Modern Portfolio Theory (MPT) and identified portfolio weights that maximize expected returns for a given level of risk.

Portfolio Website Development with Prompt Engineering

- Conceived, designed, and developed a personalized portfolio website to showcase projects and technical expertise, using prompt engineering techniques for project execution.
- Employed tools and frameworks such as HTML, CSS, JavaScript, and modern libraries such as React to create a responsive and user-friendly interface for intuitive navigation.
- Demonstrated strong self-taught skills by improving prompt engineering methods to refine queries and extract relevant and accurate information from large language models.