# Haniya Akhtar

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# **Professional Summary:**

Data Science and AI specialist with applied expertise in Python, SQL, TensorFlow, and NLP. Experienced in building scalable, data-driven solutions across finance, energy, and automation. Strong foundation in predictive analytics, full-cycle model development, and background in research with ongoing Scopus publications and certifications from Google, AWS, and NVIDIA.

#### **Education:**

## Computer Science (AI-ML) Engineering, University of Mumbai (CGPA – 8.96)

(June 2022 – June 2026)

Relevant Coursework: ML, Deep Learning, AI, Statistics, Big Data Analytics, Data Analytics & Visualization, DBMS

**Skills:** 

Languages & Tools: Python, R, SQL, Pandas, NumPy, Excel

Frameworks & Libraries: Streamlit, Shiny, Flask, LangChain, Gradio, scikit-learn, CatBoost, Prophet, SHAP, FAISS

Platforms & DevOps: SQLite, GitHub Actions, AWS, Azure, Power BI, Tableau

# **Projects:**

## • Spatiotemporal Analysis of Bike Rental Trends using Environmental Data

Forecasts city-wide bike demand using weather and calendar signals to uncover peak usage patterns, helping urban planners optimize station placement and fleet distribution.

Tools: R, Shiny, OpenWeather API, Tidyverse, Posit Cloud

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• Deep Learning-Powered Multi-Asset Forecasting Engine (Research Paper in process for Scopus Publication)

Real-time platform forecasting equities, crypto, and mutual fund trends to help individual investors identify market patterns and adjust portfolios with confidence.

Tools: Python, TensorFlow, Streamlit, yfinance, ta-lib, NewsAPI

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Adaptive Semantic Extraction System for Web-Scale Unstructured Data (Ongoing)

Scalable web crawler using LLMs to extract high-relevance domain-specific content, supporting enterprise-grade document retrieval and contextual analytics.

Tools: Python, Crawl4AI, DeepSeek, LangChain, Pydantic

# LLM-Powered Book Discovery Engine with Contextual User Modeling

Conversational engine that personalizes book discovery by interpreting user sentiment and retrieving titles through semantic search, enhancing engagement for content platforms.

Tools: FAISS, LangChain, HuggingFace Transformers, Gradio, Python, Pandas

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• Maintenance Monitoring Platform for Industrial Safety Automation (Research Paper in process for Scopus Publication)

Cloud-deployed ML pipeline that models how student behavior influences performance, supporting continuous academic risk prediction and automated updates.

Tools: Python, Scikit-learn, Streamlit, SHAP, SQL

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## • CI/CD-Enabled ML System for Student Behavior Impact Analysis (Ongoing)

Cloud-deployed ML pipeline that models how student behavior influences performance, supporting continuous academic risk prediction and automated updates.

Tools: Python, CatBoost, GitHub Actions, Azure, AWS

# • Havenly - Your AI-Powered Health Insurance Advisor

AI-based advisory tool that simplifies policy search and selection by offering natural language responses tailored to individual healthcare needs and constraints.

Tools: Python, Streamlit, Gemini AI

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#### • Self-Optimizing Power Grid AI for Real-Time Energy Fraud Detect on and Load Balancing (Ongoing)

Smart grid system that balances load, forecasts demand, and detects anomalies using real-time Kafka streams, reducing losses due to theft and outages in urban zones.

Tools: Python, Kafka, GANs, RL (Stable Baselines), Prophet, SHAP, Streamlit

#### **Leadership & Responsibilities:**

## Google Developers' Groups on Campus, Operations' Head

(October 2024 - May 2025)

- Led a team of 20+ volunteers to execute developer-focused events, workshops, and speaker sessions.
- Oversaw event logistics, speaker coordination, & community outreach, driving participation and engagement across campus.

## Research/Thesis, Courses & Certifications:

IBM Data Science Professional Certificate, CS50's Introduction to Databases with SQL (Ongoing), Oracle DBMS Foundations, NVIDIA Generative AI with Diffusion Models, NVIDIA Building RAG Agents with LLMs (Ongoing), DeepLearning.AI Supervised ML: Regression and Classification, AWS Academy Cloud Foundations, AWS Academy Cloud Architecture, Celonis Academic Process Mining Fundamentals