

SYED HASEEB SHAH

Phn: +92 3094993023 | Gmail: codingsheep17@gmail.com | LinkedIn: syedhaseebshah19

EDUCATION

University of Punjab

Bachelor of Computer Science, Minor in Business (on-going)

PROJECTS

AI/ML/DL Projects:

AI-Powered Financial Advisor System

- Built a full-stack **AI-powered financial advisor system** to predict loan risk and generate personalized financial insights
- Developed RandomForest, **K-means** for customer segmentation to identify distinct borrower profiles
- Designed a complete **ML pipeline** including preprocessing, feature alignment, and real-time inference
- Integrated **Google Gemini LLM API** to generate contextual financial advice based on user inputs and predictions
- Developed an interactive frontend using **Streamlit**, enabling real-time user input and model predictions
- Improved system reliability by combining **ML predictions with rule-based logic (hybrid approach)**

Mall Customer Segmentation Web App

- Unsupervised ML, **K-Means clustering** to segment customers to groups based on spending and demographics
- Implemented data preprocessing, scaling, and **optimal cluster selection (Elbow Method)** to improve quality
- Developed an interactive **Streamlit web app** to visualize clusters and allow real-time user input
- Enabled business insights by mapping customer segments to **marketing and sales strategies**
- Deployed the application publicly, making ML insights accessible without coding

ShahEDA (EDA Engine)

- Built a modular **EDA engine** to automate data analysis including stats, distributions, and insights generation
- Designed reusable components for **data loading, preprocessing, visualization, and reporting pipeline**
- Generated quick insights like missing values, correlations, and feature patterns to speed up analysis workflow
- Structured the project as a clean, scalable system (**engine + pipeline**) for real-world datasets
- Reduced manual EDA effort by turning complex analysis into a **single streamlined process**

MRS (Cosine Similarity)

- Built a movie recommendation web app using **Flask** for backend and dynamic content rendering
- Implemented a **content-based recommendation system using Cosine Similarity** to suggest similar movies
- Processed and vectorized movie features to compute similarity scores between items
- Designed backend routes and templates to handle **user input and real-time recommendations**
- Structured the application with modular components for **scalability and maintainability**

TECHNICAL SKILLS

Front-end: Streamlit

Back-end: Python, Numpy, Pandas, Scikit-learn, Flask, Jinja2, Matplotlib, Seaborn.

AI/ML/DL: ModelEvaluation, Scaling, Tokenization, GenAI (LLMs, VectorDB), Agentic AI (n8n)

Developer Tools: Github, VS Code, HuggingFace, Jinja2 templating

Databases: MySQL, VectorDB (FAISS)