



MUHAMMAD ASAD ALI

DATA SCIENTIST | PYTHON DEVELOPER

Summary

Motivated and hands-on Data Science and Python Developer with a passion for turning data into actionable insights. Worked on real-world projects involving machine learning, and model deployment. With experience in tools like Pandas, scikit-learn, SQL, and framework like Flask. Skilled at translating business problems into scalable tech solutions and collaborating with international teams. Looking to contribute to impactful projects in tech and data analytics.

Content

✉ masadali547@gmail.com

☎ 0310-5522669

🌐 [linkedin.com/in/muhammad-asad-ali01/](https://www.linkedin.com/in/muhammad-asad-ali01/)

🐙 github.com/Muhammad-AsadAli

📍 Pakistan, Rawalpindi

Skills

- Python
- Pandas
- NumPy
- pygame
- scikit-learn
- PyTorch
- C++
- SQL (PostgreSQL)
- HTML
- CSS
- Bootstrap
- Figma
- Excel
- Google Sheets
- Powerpoint
- Supervised Learning (Classification | Regression)
- Model Deployment (Flask)
- Model Evaluation & Validation (Cross Validation | ROC-AUC)
- Data visualisation tools (Power BI)
- Tableau
- Google Looker Studio
- Matplotlib & Seaborn

Courses

- **Dice Analytics** : Data Science and Machine Learning
- **Navttc (Arena Multimedia)** : Ui/Ux Course
- **Hp life Data Science** : Data Science & Analytics Crash Course
- **Innovista**: Machine Learning Course
- **datacamp**: Understanding Data Science

Education

Higher National Diploma in Computer Science
PEARSON EDEXCEL – London, UK
Duration: Dec 2022 – Dec 2024
Equivalent to 14 years of education in Pakistan (HND Level 5)

Experience

Excelerate – Dubai | Mar 2025 – May 2025

(Remote)

Data Visualization Associate Intern

Tech Used: Python (Pandas), Jupyter Notebook, PostgreSQL (pgAdmin), Google Looker Studio

- **Situation:** The marketing team lacked a unified data source to track performance metrics across multiple platforms.
- **Task:** Integrate multiple datasets, clean and structure data, and build a unified dashboard to support marketing and retention strategies.

Action:

- Imported and cleaned 6 raw datasets using Pandas in Jupyter Notebook, standardizing formats and handling missing values.
- Uploaded the cleaned data into PostgreSQL via pgAdmin, validating it with multiple SQL queries to ensure integrity.
- Created a master table for centralized reporting and a mapping table to standardize category relationships across datasets.
- Developed a dynamic Google Looker Studio dashboard that visualized KPIs such as customer retention, campaign effectiveness, and sales trends.

Result: Result: Delivered a professional-grade dashboard that enabled real-time insights and improved stakeholder reporting across the marketing team.

Project

AI Chatbot Web App

- **Python, Flask, Gemini API, HTML/CSS**
- Developed a real-time chatbot using Gemini Pro API and Flask to manage natural conversations. Handled prompt formatting and front-end design for interactivity.
- Result: Created a dynamic chatbot interface capable of contextual AI responses.

Titanic Survival Predictor

- Python | Flask | scikit-learn | Logistic Regression | HTML/CSS
- **Situation:** Created an educational app to showcase predictive modeling.
- **Task:** Predict Titanic passenger survival using ML.
- **Action:** Cleaned data, encoded features, trained a logistic regression model, and built a Flask-based web interface for user input.
- **Result:** Achieved 82% model accuracy and deployed an interactive app to demonstrate classification modeling.

Flight Price Prediction System

- **Python | scikit-learn | Random Forest**
- **Situation:** Analyzed factors affecting flight fares to build a prediction engine.
- **Task:** Train a model to estimate flight prices using structured travel data.
- **Action:** Performed feature engineering, handled missing values, and trained a Random Forest Regressor.
- **Result:** Built a robust model with $R^2 \sim 0.88$, helping users estimate ticket costs based on journey details.

Languages

- English - Fluent
- Urdu/Punjab - Fluent

Movie Recommendation System

Python, scikit-learn, Pandas

- **Situation:** Built a content-based movie recommender using TF-IDF and cosine similarity. Merged key metadata to compute similarities and suggest relevant movies.
- **Result:** Delivered an accurate recommendation tool enhancing user experience.

Attendance Management System

- **Python, Tkinter, PostgreSQL, PIL, tkcalendar**
- Built a desktop app with user/admin panels to handle attendance, leave requests, and reporting.
- **Result:** Streamlined attendance tracking and reduced manual effort in record management..

Employee Management System

- **Python, Tkinter, ttk, messagebox**
- Created a desktop tool to view, update, and manage employee records via a Tkinter dashboard.
- **Result:** Improved data organization and simplified HR workflows.

Hotel Management System

- **Python, Flask, PostgreSQL**
- Full-stack booking system with user/admin panels, customer registration, room management, rent calculation, and billing.
- **Result:** Delivered a working hotel booking and billing dashboard with persistent storage.

Snake Game

- **Python, Pygame**
- Coded a playable Snake game with collision detection, scoring, background music, and smooth frame animation using event handling.

Account Management System (C++)

- **C++, File I/O**
- Console-based system for managing user accounts using linked lists. Included features for creation, login, balance update, and deletion with file persistence.