SAJJAD ALI SHAH

www.linkedin.com/in/sajjad-ali-shah47
sajjadkhanyousafzai47@gmail.com
https://github.com/SajjadKhanYousafzai
+92 316 9671878

EDUCATION

Bachelor of Science in Software Engineering **Sep 2022 - Present**
Comsats University Islamabad (Wah Campus)

- Cumulative GPA: 3.2/4.0
- Enroll in 6 Semester
- Relevant Coursework: Linear Algebra, DSA, Statistics & Probability, Calculus, Database & Discrete Mathematics

FSc in Pre Engineering **Mar 2018 - Aug 2020**
Army Public School & Degree College Malir Cantt Karachi

- Grade: Mathematics (A+), Chemistry(A-), Physics(A).

SKILLS SUMMARY

- **Languages:** Python, Java, C++, SQL, HTML, CSS
- **Frameworks:** Flask, Pandas, Numpy, Scikit-learn, Matplotlib, Tensorflow
- **Tools:** Power BI, Excel, PowerPoint, Tableau, MySQL, SQLite, Git
- **Platforms:** PyCharm, Jupyter Notebook, Visual Studio Code, IntelliJ IDEA
- **Soft Skills:** Rapport Building, Strong Stakeholder Management, People Management, Excellent Communication

WORK EXPERIENCE

Digital Empowerment Network Islmabad Pakistan
Machine Learning Intern **Sep 2024 - Oct 2024**

- Developed machine learning models for classification and regression tasks using Scikit-learn and TensorFlow, achieving up to 93% accuracy on structured datasets.
- Performed data preprocessing, feature engineering, and model evaluation to optimize predictive performance.
- Collaborated with a team to deliver data-driven solutions, enhancing business decision-making through predictive modeling.

PROJECTS

- **Sign Language Detection System**
  - Developed an end-to-end real-time American Sign Language (ASL) recognition system using TensorFlow, MediaPipe, and OpenCV. Preprocessed ASL datasets, built a CNN with data augmentation (90% accuracy), and integrated MediaPipe for hand landmark detection. Deployed a Tkinter GUI for live webcam detection with text-to-speech output via pyttsx3 and ported the model to TensorFlow.js for web deployment.
- **Movie Recommendation System**
  - Built a recommendation engine using collaborative and content-based filtering with Scikit-learn and Pandas, deployed via Streamlit. Delivered personalized movie suggestions, enhancing user engagement by 15% in testing.
- **Prediction Models**
  - Heart Disease Prediction: Developed a Scikit-learn classification model to predict heart disease, achieving 92% accuracy via feature engineering.
  - Diabetes Prediction: Built logistic regression and decision tree models to assess diabetes risk, validated with 88% accuracy.
  - Loan Approval Prediction: Designed a classification model with ensemble techniques, improving loan approval accuracy by 10%.
  - Email Spam Detection: Implemented an NLP-based classifier with Scikit-learn, achieving 95%+ accuracy for spam detection.
  - House Price Prediction: Created a regression model to estimate housing prices, reducing prediction error by 12% through cross-validation.
- **Customer Personality Analysis**
  - Performed customer segmentation using K-Means clustering with Scikit-learn, enabling targeted marketing strategies with a 20% improvement in campaign focus during testing.

CERTIFICATES

- **Languages:** English, Urdu, Pushto
- **Certifications:**
  - IBM Data Analyst | IBM
  - IBM Data Science **|** IBM
  - IBM Machine Learning | IBM
  - Generative AI for Data Scientists | IBM
  - Introduction to Statistics | Stanford University
  - Deep Learning Specialization **|** Deep Learning.AI
  - SQL For Data Science | University of California, Davis
  - Machine Learning Specialization **|** Deep Learning.AI & Stanford University