SYEDA FATIMA SAJID

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CAREER OBJECTIVE:

Enthusiastic and dedicated Computer Systems Engineering student with hands-on experience in Machine Learning and Artificial Intelligence. Passionate about developing innovative solutions, aiming to contribute to cutting-edge projects and grow as a Machine Learning Engineer. Able to lead community initiatives, deliver impactful solutions and create engaging narratives.

WORK EXPERIENCE:

Machine Learning Intern
AptechSoft | July 2024 - October 2024

- Implemented advanced ML techniques, including Generative Adversarial Networks (GANs) for image generation and dataset balancing.
- Collaborated on impactful AI projects, enhancing technical expertise and problem-solving abilities.

EDUCATION

Bachelor of Science (BS) in Computer Systems Engineering
University of Engineering and Technology, Peshawar | 2021 - 2025

Intermediate (Pre-Engineering)
Tameer-i-Wattan Public School and Colleges, Abbottabad | 2019 - 2021

Matriculation (Science)
Pakistan National Public School and Colleges, Abbottabad | 2017 – 2019

TECHNICAL SKILLS

Programming Languages: Python, C++, HTML, CSS
Frameworks & Libraries:

- **Machine Learning:** scikit-learn, pandas, NumPy, Matplotlib, Seaborn
- **AI & Machine Learning Techniques:**
  - Supervised & Unsupervised Learning

- Regression (Linear, Polynomial)
- Classification (Random Forest, SVM, XGBoost)
- Clustering (K-Means, DBSCAN, Hierarchical Clustering)
- Dimensionality Reduction (PCA, t-SNE)
- Anomaly Detection (Isolation Forest)

Other Tools: Google Colab, GitHub, VS Code

PROJECTS

1. DOCGENIE: AI-Assisted Medical Report Automation (FYP)

- Developed an AI-powered system using Whisper and LLMs to automate medical report generation from doctor-patient conversations.
- Enhanced healthcare documentation by reducing manual workload and improving accuracy through advanced NLP techniques.
- **Technologies:** Python, Whisper, OpenAI, Speech Recognition, Healthcare Data Processing.

2. Smart Cities Traffic Management (Research Project)

- Focused on handling imbalanced datasets for vehicle and face detection using Random Under-Sampling and GANs.
- Applied Random Forest, SVM, and XGBoost algorithms to improve classification accuracy.

3. Linear & Multiple Linear Regression (Diamonds Dataset)

- Analyzed diamond prices using Linear and Multiple Linear Regression based on carat, cut, color, and clarity.
- Developed 3D visualizations to enhance model insights.
- **Tools:** Python, Scikit-learn, Matplotlib, Seaborn, Pandas.

4. K-Means Clustering on Iris Dataset

- Applied K-Means to cluster Iris flowers based on sepal and petal features.
- Determined optimal clusters with the elbow method and visualized results in 2D/3D.
- **Tools:** Python, Scikit-learn, Matplotlib, Seaborn.

5. Polynomial Regression for Salary Prediction (Position Salaries Dataset)

- Implemented Polynomial Regression (Degree 4) to model non-linear relationships between position levels and salaries.
- Predicted salaries for specific roles to support data-driven decisions.
- **Tools:** Python, Scikit-learn, Matplotlib.

CERTIFICATIONS

- **Advanced Python Programming** – Navtacc (December 16, 2024)
- **Information Technology Specialist – Python**

  Issued by Certiport (Pearson VUE) (January 13, 2025)

LEADERSHIP & EXTRACURRICULAR

- **Core Member**, WTM Co-Lead GDSC UET Peshawar
- **Core Member**, Computer Society UET Peshawar
- **Core Member**,Co-ordinator @ Let's Help Welfare Society Society UET Peshawar