Rafay Ahmad Raza

rafayahmadraza@gmail.com | github.com/RafayAhmadRaza | linkedin.com/in/rafay-ahmad-raza | Portfolio | +923301587838

Education

National Skills University 18/09/2022 - 20/08/2026

B.S. Computer Science | Faiz Ahmed Faiz Road, Sector H-8/1, Islamabad, 44310

- GPA: 3.52/4.0
- Relevant Coursework: Software Engineering, Operating Systems, Analysis of Algorithms, Artificial Intelligence, Machine Learning, Data Structures and Algorithms.

Experience

Pakistan Television Corporation 19/06/2025 - 18/08/2025

Intern - Software Development | Constitution Ave, F-5/1, Islamabad, 44000, Pakistan

- Architected a full-stack web application by integrating a custom TensorFlow model with a Python backend and Bootstrap frontend.
- Developed and utilized REST APIs to facilitate seamless data communication between the web interface and machine learning models.
- Engineered image capture capabilities to allow real-time facial analysis through AI-driven processing of user uploads.
- Applied clean code principles, ensuring modular design and industry-standard naming conventions for enhanced scalability.

Projects

Sign Buddy *(Final Year Project)* 15/08/2025 - 04/06/2026

Developer

- Architecting a cross-platform mobile application for real-time sign language translation utilizing the Flutter framework.
- Executed a literature review of existing sign language recognition solutions to optimize model architecture.
- Engineering both finger-spell and word-level sign language recognition models via TensorFlow.
- Preprocessed and analyzed datasets using NumPy, Pandas, Matplotlib, and Seaborn; applied normalization techniques for model training.
- Integrated Firebase Authentication to facilitate secure user account management and data security.
- Authored comprehensive technical documentation detailing system architecture and modular application design.

Glasses Recommender System 24/07/2025 - 28/07/2025

Developer

- Built a face shape recognition system using TensorFlow and Python to recommend suitable eyewear styles.
- Preprocessed and analyzed datasets using NumPy, Pandas, and Matplotlib; utilized MediaPipe for facial landmark extraction and applied normalization techniques for model training.
- Developed a web interface using Bootstrap, HTML, CSS, and JavaScript with a FastAPI and uvicorn backend.
- Secured the Gemini API key via environment variables and integrated it to generate personalized eyewear recommendations based on predicted face shape.

Original 151 Pokémon Image Classifier 24/11/2024 - 06/01/2025

Developer

- Built an image classification model to identify the original 151 Pokémon using TensorFlow and Python.
- Preprocessed and analyzed dataset using NumPy, Pandas, and Matplotlib; applied normalization techniques for model training.
- Developed and trained a custom Neural Network for image recognition tasks.
- Created a Streamlit web interface for interactive testing and predictions.

Certifications & Assessments

- National Skills Competency Test (NSCT) — Achieved 89.7th Percentile Nationwide.
- Coursera Specialization in Machine Learning (2025): Supervised Machine Learning (Regression and Classification), Advanced Learning Algorithms, Unsupervised Learning / Recommenders / Reinforcement Learning.
- Coursera Certificate in Object Oriented Programming in Java (2023).
- Coursera Certificate in Programming for Everybody (Getting Started with Python) (2025).

Technical Skills

- Programming Languages: Python, Dart
- Web Technologies: HTML, CSS, JavaScript (Basic)
- Languages: Urdu (Native), English (Fluent), German (A1)
- Systems: Linux, Windows
- Tools & Technologies: TensorFlow, MediaPipe, Firebase, FastAPI, Streamlit, Gemini API, Flutter