# **Tariq Ahmad**

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## **Career Objective**

Aspiring real-time problem solver with a strong foundation in Electrical and Computer Engineering, specializing in AI, cloud computing, and automation. Passionate about developing innovative solutions that enhance efficiency, accuracy, and scalability in real-world applications. Eager to apply technical expertise and collaborative skills in challenging, fast-paced environments.

## **Professional Summary**

Detail-oriented Python developer and aspiring ML Engineer with hands-on experience building practical tools—from data-sampling utilities (Nibber) to image-background removal apps (BackGroundRemover). Experienced with FastAPI, Flask, Azure, and Linux systems. Passionate about delivering scalable backend systems and ML-augmented utilities.

### **Technical Skills**

- Languages: Python, C++, HTML, CSS, JavaScript, SQL
- Frameworks / Libraries: FastAPI, Flask, Tkinter, Pandas, NumPy, OpenCV, rembg, Scikit-learn, PyTorch (where applicable)
- Data & Storage: Parquet, PyArrow, CSV, Excel
- Tools & Platforms: Microsoft Azure, Docker, Git, GitHub, VirtualBox, Render, Fly.io, Celery, React (frontend)
- Other: REST API development, model deployment, responsive UI design, Linux command line

### **Soft Skills**

 $Problem \ solving \cdot Communication \cdot Teamwork \cdot Project \ documentation \cdot \\ Time \ management$ 

## **Experience**

#### **Intern - AI Division**

Advanced Telecom Services (ATS AI Lab), Haripur, KPK

#### July 16, 2025 - August 2025

- Contributed to AI model development and deployment using **Python**, **Microsoft Azure**, and **FastAPI**.
- Processed and analyzed large datasets (CSV, Excel, Parquet) with **Pandas** and **NumPy**, improving data preprocessing efficiency by ~30%.
- Assisted in integrating ML algorithms into telecom systems, improving prediction accuracy by  $\sim 15\%$ .
- Designed and tested computer-vision workflows with **OpenCV**, optimizing image-processing latency by ~20%.
- Documented workflows and prepared technical reports for knowledge transfer.

**Internship details (record):** Placement Proforma issued by Pak-Austria Fachhochschule; Internship employer: Ahmed Ali (AI Division, Advanced Telecom Services); Joining date: July 16, 2025.

### **Education**

#### Bachelor of Science — Electrical & Computer Engineering

Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF-IAST), Haripur, KPK

- Current: 4th semester · **CGPA:** 2.9 / 4.0

- Expected graduation: 2027

# **Projects (selected)**

Repos & demos available on GitHub (see profile)

**Nibber — Data Sampling Tool** · FastAPI, Pandas, PyArrow, Parquet, Excel, CSV

- Built a web-based sampler capable of handling datasets >10M rows.
- Implemented optimized sampling algorithms that reduced end-to-end processing time by **40**%.
- Added live progress tracking and resumable sampling to improve analyst productivity.

# **MarketPulse — Intelligent Trading Advisor** · FastAPI, React, Celery, vectorstore

- Engineered a hybrid evidence-based recommendation system combining historical data, live news, and semantic vector retrieval.
- Reduced false-positive trading signals by  ${\bf 18\%}$  via tuning and multi-source validation.
- Designed dashboard with "Why?" explanations and country-specific analysis.

#### **Background Removal App** · Python, Tkinter, rembg, OpenCV

- Developed an offline GUI tool achieving ~95% accuracy on standard product photos.
- Optimized pipeline for multi-threaded processing, cutting latency by 25%.

- Delivered an intuitive GUI; non-technical users able to process images within **5 minutes** of first use.

#### Flask → Android Packaging · Flask, WebView

- Ported Flask web apps into an Android WebView wrapper for offline local hosting.
- Improved mobile accessibility and enabled testing for **100+** early users.

#### **3D Model Generation from Text** · ML + Blender API

- Built a pipeline that converts textual prompts into 3D meshes; optimized mesh construction to reduce generation time by **35%**.
- Integrated an interactive preview for immediate inspection before export.

#### AI-Powered Data Cleaner · Python, Pandas, Scikit-learn, Regex

- Created an automated cleaning utility detecting and fixing **15+** common data issues; reduced manual preprocessing by **50%** for datasets up to 2GB.
- Built anomaly detection models achieving ~92% precision on flagged outliers.

### Open-Source / Selected Repositories

 BackGroundRemover · BackGround\_removal\_imgs · nibber-datasampler · flaskapp · flaskPredict
(Full repo list on my GitHub profile: https://github.com/tCDFHSKHDF)

### **Achievements / Awards**

- Assistant Manager Welfare Society, Pak-Austria Fachhochschule
  - Led and coordinated multiple welfare initiatives, impacting over 200 students through fundraising drives, awareness campaigns, and community outreach programs.
  - Managed event planning, budget allocation, and volunteer coordination to ensure smooth execution of society activities.
  - Collaborated with university administration and external partners to expand the reach and effectiveness of welfare programs.

### Certifications

- Basic Python Programming Coursera 30 Dec 2023
- Navigating Linux Systems & Essential Cybersecurity Concepts Usama Tayyab — 15 Mar 2025

# **Languages & Proficiency**

- **English** IELTS **6.0** Overall (21 Oct 2023)
- Urdu Native

### **Hobbies & Interests**

- Exploring AI and Machine Learning models
- Cloud computing & deployment on Microsoft Azure
- Open-source contributions on GitHub
- · Linux system customization and scripting

# References

Available upon request.

# **Availability**

Open to internships and entry-level roles in Backend / ML / Full-Stack development. References and full internship placement proforma available on request.