

Afaq Ahmad Khan

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Career Objective

- A motivated professional keen in exploring novel learning opportunities
- Love to incorporate programming skills in an Industry or R&D based position
- Seeking opportunities to present complex technical ideas in simple ways

Work Experience

Lecturer

Punjab Tianjin University of Technology (PTUT), Lahore

Department of Software Engineering Technology

Sept'23 – Jun'24 & Feb'26

Present

Taught Courses:

- Data & Computer Communication
- Discrete Structures
- Machine Learning
- Internet of Things (IoT)
- Applications of ICT
- Computer Fundamentals / Computer Programming

Python Developer

SEO Masterz, Lahore

January 2025 – Present

Part-time

Responsibilities:

- Developed Python scripts to scrape data via APIs and automated web extraction workflows.
- Converted scripts into '.exe' applications for ease of use.
- Managed structured and unstructured data from static and JavaScript-rendered websites using REST APIs.

Websites Worked On: Yelp, CanadaOne, Canada411

Data Formats: JSON, CSV, SQL

Libraries: requests, beautifulsoup

Associate Patent Engineer

EaseIP Pvt Limited, Islamabad

July 2024 – December 2024

Areas of Interaction: AI, Machine Learning, Data Science

Clients: Oracle, Neurovigil

Responsibilities:

- Drafted utility patents in collaboration with international clients.
- Communicated directly with U.S.-based attorneys for patent prosecution and compliance.

Professional Certificates

Specialization Data Science & Machine Learning

Dice Analytics, Islamabad

Online *In-progress*

Education

MS Computer Engineering

2020-2023

National University of Sciences & Technology (NUST), Islamabad

CGPA: 3.6/4.0

Major Areas: Computer Networks, Data Mining, Machine Learning

Thesis: A Lightweight Traffic Classification & Forwarding Scheme for Software Defined Networks

Technical Summary

- **Backend Development:** Python (3+ years), Django, Flask, FastAPI, REST APIs
- **Frontend Integration:** HTML5, CSS3, JavaScript (basic understanding for templating and integration)
- **Data & Cloud:** SQL, GCP, Pandas, NumPy, Scikit-learn
- **Testing & Version Control:** PyTest, Git, GitHub, CI/CD (GitHub Actions)
- **Other Tools:** NS3, Mininet, Wireshark (networking), MATLAB, L^AT_EX, Colab

Publications

1. Journals

- (a) Muhammad Talha Jahangir, Aamir Hussain, Muhammad Umar Farooq, **Afaq Ahmad Khan**, and Hasseeb Ahmad Bhutta. Analyzing Cache Server Placement's Impact on SDN-based Cooperative Caching. *Journal of Computing & Biomedical Informatics*, Apr. 2024

2. Conferences

- (a) **Afaq Ahmad Khan**, Muhammad Umar Farooq, and Ali Hassan. A Study & Proposed Architecture for Large Scale IoT Networks in the Space of Public Transportation. In *2023 3rd International Conference on Artificial Intelligence (ICAI)*, pages 182–187, 2023

ML/Python Projects

A select few projects:

1. **SEO Toolkit Development** (*for rank4sure.com & seomasterz.com*)

- Developed and deployed 37 and 15 Python-based toolsets to streamline client workflows.
- Integrated **Flask with HTML, CSS, & JavaScript** for seamless incorporation into client web templates.

2. **Yelp Data Scraper**

Goal: To automate process of scraping data from Yelp

- Libraries: tkinter, threading logging, requests
- Developed a multi-threaded Python scraper using Yelp API, handling large datasets efficiently.
- Applied logging and debugging techniques to ensure reliability.

3. **GitHub Repo Analyzer** [Web Application](#), [Repository link](#)

Goal: Built an interactive web app to assess GitHub repository health and visualize contributor activity.

- Libraries: streamlit, reportlab, json
- Identified and visualized key contributor activity, highlighting highest and lowest participation levels.
- Processed repository data to analyze commit authorship, daily commit frequency, and per-user contribution trends.