

## CAREER SUMMARY

A results-driven software engineer with a strong focus on data science and machine learning, backed by hands-on experience in backend development and Python-based technologies. Currently contributing to operational development in a submarine-cable team, I have cultivated robust expertise in building scalable systems, implementing AI/ML models (ML/DL pipelines), and delivering clean, maintainable code using frameworks such as Django, Flask, and REST APIs. My journey from teaching computer science to engineering micro-services underscores a commitment to continuous learning and improvement. I thrive in dynamic, cross-functional environments where creativity, analytical thinking, and effective communication drive real business outcomes, and I'm ready to contribute to challenging projects that leverage data and software to create impact.

## WORK EXPERIENCE

### Backend Developer (Python Developer)

EXTRAVIS (Islamabad, Pak)

Feb – 2025 – Currently

At Extravis, I work as a **Backend Developer** specializing in **operational analytics and submarine cable utilization**, collaborating closely with the **Cisco KSA** team. I design and maintain scalable backend systems that enable efficient, real-time data processing and visualization to monitor and enhance network performance.

- **Improved operational analytics** by building and optimizing data pipelines for real-time submarine cable utilization, enabling faster insights and data-driven decisions.
- **Developed scalable REST APIs** using **Django** and **Flask** for real-time data ingestion and processing, ensuring high reliability and maintainability.
- **Partnered with Cisco IMS operations** to support telecom-grade voice/data convergence across multi-network systems, improving service reliability and product performance.
- **Enhanced network observability** using **InfluxDB**, **SolarWinds**, and **Grafana** establishing KPIs, dashboards, and alerting mechanisms that increased monitoring efficiency and reduced downtime.
- **Strengthened product quality and business support** by optimizing backend workflows, improving data accuracy, and providing actionable insights that directly supported strategic decision-making.
- **Authored technical documentation and mentored peers**, establishing consistent maintenance practices and improving the long-term scalability of backend systems.

### Software Engineer (ASE)

Samaritan Technologies (Lahore, Pak)

Feb-2024 – Sep-2024

As a Backend Engineer at Samaritan Technologies, I contributed to developing and enhancing scalable web-application backends that supported business insights and operational growth. My role centered around building robust APIs, refining data flows, and collaborating across teams to deliver reliable software solutions.

- Reduced average API response times by **30%** through the redesign of backend workflows and optimization of queries, improving application performance and user experience.
- Designed and implemented data-processing modules that delivered **actionable insights**, enabling business stakeholders to make faster decisions and improving operational efficiency by **25%**.
- Translated user requirements into functional API endpoints and micro-services, working closely with frontend developers and QA engineers to ensure seamless integration and delivery.

### Software Engineer (Intern)

NTDC (Lahore, Pakistan)

July-2022 – August-2022

Served as a Software Engineer Intern at NTDC Lahore for duration of two months, where I actively contributed to the organization's software development initiatives. During this internship, I had the opportunity to work on a variety of software engineering projects, collaborating with a dynamic team of professionals. I played a key role in developing and enhancing software solutions, gaining valuable hands-on experience in coding, testing, and debugging. My time at NTDC Lahore allowed me to apply theoretical knowledge to real-world projects and further develop my skills in software development and problem-solving.

- Successfully implemented micro-services and REST APIs to efficiently track all employee journeys, accommodations, stays, and taxi charges, enhancing data management and accessibility.
- Demonstrated adaptability and autonomy by defining technical and non-technical workflows, collaborating with 3rd-party apps through Restful APIs, and delivering a comprehensive web-based application for employee tour management in a flat organizational structure.

### Special Subject Teacher (Full-Time)

HIST Hangu (Hangu, Pakistan)

APR 2017 - AUG 2018 (1.4 yrs)

Served as a Teacher of Computer Science at HIST School & College Hangu.

- Successfully instructed O-Level and A-Level students in Computer Science, providing guidance and mentorship over the course of one year.
- Organized interschool competitions, assigned programming assignments to student groups, & developed engaging console games in C/C++ to enhance students' learning.

## PROJECTS

### Pulmoni Digital Laboratory (Final Year Project):

- PDL is a digital Web-Based Laboratory system that facilitates to detect the pneumonia of a patient through a web browser. It is the startup and most modern tertiary care private center in the world. This application is working on some latest equipment and technology in various specialties as well as highly qualified technicians.

### Tourism Application (NTDC, Lahore):

- Develop an application that is used to keep track of all journeys, accommodations, stays, and taxi charges and generate a full report of an employee's tour of national Transmission and Despatch Company Limited, Lahore.

### Hate Speech Detection:

- Developed a hate speech detection model using Streamlit and Hugging Face, enabling real-time classification of language into hate or non-hate speech categories.

### House Price Prediction (Applied Data Science Lab, WorldQuant University):

- Develop an application Developed a house price prediction model using a robust data pipeline, incorporating OneHotEncoder, SimpleImputer, and Ridge predictor.
- Demonstrated strong data preprocessing and model selection skills, resulting in accurate predictions and valuable insights for the real estate market.

### AI Tourist Assistant:

- Developed an AI Assistant Tourist Guider leveraging OpenAI Lanchain, Agents, and Art of AI State to dynamically generate customized tour itineraries. Engineered a sophisticated AI-driven system to provide tailored travel experiences based on user preferences and location data.

## EDUCATIONS

### BS in Computer Science 2018-2022

Kohat University of Science & Technology (KUST Kohat)

3.9 / 4.00 CGPA

### ICS 2016 - 2017

Hangu institute of Science & Technology (HIST Hangu)

715 / 1100

B-Grade

## SKILLS & TOOLS

### Technical

- Python / HTML / CSS / JS
- Django/ORM/DRF
- Flask / FastApi
- MySQL / PostGresql / InfluxDB
- ML / DL / ETL
- Data Cleaning / Manipulation / Visualization
- Stats & Math
- Git / Github / Docker / AWS (EC2)
- Pandas / NumPy / Scikit-Learn
- Pytorch / Tensorflow
- Huggingface / LangChain / LangGraph
- Grafana / SolarWinds

### Professional

- Effective Communication
- Team Leadership / Team Collaboration
- Creativity
- Problem Solving
- Self-Motivated
- Attention to Details
- Work Ethics & Integrity

### Coursera Certificates

- [Python for Everybody](#)
- [Python Data Structure](#)
- [Using Python to Access web Data](#)
- [Exploratory Data Analysis for Machine Learning](#)
- [Supervised Machine Learning: Regression](#)

## EXTRA (Awards / Certificates / Activities)

### Applied Data Science Lab (WQU):

- Clean authentic, messy datasets
- Build predictive models for regression and classification
- Create compelling visualizations to explain data characteristics and model performance
- Discuss the ethical implications of deploying models in the real world and the environmental impact of machine learning models
- Learn how to apply machine learning to business problems
- Extract data from SQL and NoSQL databases