

Muhammad Talha

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Education

Bachelor in Computer Science

Fast NUCES

peshawar

2020 - 2024

- Relevant Courses : Data Structure, Algorithm, Data Science, OOP, Computer Modeling,

Experience

Data Science Intern - Asterisc Technocrat

August 2023 - November 2023

- Developed and deployed data preprocessing pipelines to clean and transform large datasets for analysis.
- Built machine learning models to extract actionable insights and solve business challenges.
- Conducted exploratory data analysis (EDA) and presented results using visualization tools like Matplotlib and Seaborn.

Virtual Experience Program Participant – Walmart Global Software Engineering, Forages (Virtual)

- Conducted market research and consumer needs analysis to create data-driven client recommendations.
- Analyzed data to identify trends and patterns, optimizing client-focused strategies.
- Delivered a structured solution approach showcasing problem-solving and data analysis skills.

Projects

Real-Time Traffic Analytics and Dynamic Signaling - [Code](#)

FYP

- Fetched real-time traffic data from Google API and simulated it using SUMO.
- Designed and implemented a real-time data pipeline with Kafka and Spark Streaming.
- **Developed predictive models using SparkML to train a Random Forest Regressor for traffic volume predictions.**
- Displayed **real-time, historical, and predictive analytics** on a Streamlit dashboard.

BrowserStack Site testing - Manual Testing - [Code](#)

- Developed a comprehensive test plan to test the performance and functionality.
- Created Test Cases to cover key features such as **live testing**, **automated testing**, and responsive design
- Document test results in Jira (**zephyr**) providing clear defect report
- Compile a **summary report** to highlight the overall performance and **stability**

Detection of Osteoarthritis in Radiographic Images - [Code](#)

2023

- Built a data preprocessing pipeline, including resizing, normalization, noise reduction, and data augmentation.
- Fine-tuned pretrained models with TensorFlow and PyTorch for knee osteoarthritis detection.
- Designed deep learning architectures to enhance model accuracy for image classification tasks.

Skills

- Test Plan | Test Cases | **Manual Testing** | Zephyr | Jira | SDLC | SDTC | Agile | **Automated Testing** | selenium
- Python | Numpy | **Pandas** | Matplotlib | **C++** | Postgres | Git | Linux | Apache Spark | Apache Kafka | Apache Airflow

Certifications

- Data Analysis with Python | Data Science Methodology | Data Science Orientation | Tools for Data Science V2 - [Coursera IBM](#)

Volunteer Work

- **Data Science Teachers Assistant** - Fast NUCES

Mentored students in Data Science Subject, Teaching different tool and techniques