Ahad Tariq

therealahadtariq@gmail.com
0324-8448344
https://github.com/ahadtar-1
https://www.linkedin.com/in/ahad-tariq-56316b192/

An undergraduate of Computer Science motivated to learn, work, and grow in the software industry. I am a hardworking individual with a strong will to enhance my skills through working on practical projects and excel. My areas of interest are Artificial Intelligence, Backend Design and Development, and Data Science. I am eager to learn more about these fields and experience working in a collaborative environment with professionals of these areas.

Experience

2022-06 - 2022-12

Machine Learning Intern

Venturenox, Lahore

Developed a strong understanding of backend technologies and tools associated with modern day software and machine learning applications.

- Worked on developing projects using principles of Microservices Architecture and Docker.
- Created APIs using FastAPI in a Microservices environment for reading and writing data into a Postgres Database.
- Publishing and subscribing events into Kafka topics in a Microservices environment.
- Produced data streaming pipelines using Kafka Streams for the purpose of data transformation on multiple sets of data.
- Created an Apache Spark project inorder to understand and exhibit distributed data processing.
- Performed data analysis in ClickHouse inorder to extract multiple insights from large data.
- Performed feature extraction on image data and model building using Tensorflow.

Skills acquired: FastAPI - Docker - Kafka - Kafka Streams - Apache Spark - ClickHouse - TensorFlow - Parallel Processing - Microservices Architecture

Projects

TEAM UP - Android Application for Job and Team Finding

An Android Application built to bridge the gap between academia and industry. The application implements Natural Language Processing and Data Science. Fresh graduates and unemployed individuals can join the application to build teams for their personal projects and recruit. After working on projects they can apply for jobs through the application. Job recommendation is implemented through an AI based recommendation engine using NLP and Cosine Similarity. Final Year Project for Bachelors.

Comparison of Classification Machine Learning Algorithms for Mobile Price Prediction

Classification of prices of different mobile phones ranging from low to very high based on

mobile phone features for the purpose of finding the most high performing model.

Data Analysis of Github Events

The aim of this project was to extract meaningful insights from the Github Events Dataset. ClickHouse was used to generate multiple views which provide insights of the Github ecosystem. The insights extracted were the number of commits generated in each repository per year, the repositories in which commits were generated by a specific user in a span of one year, the growth and stagnation rate in terms of commits of each repository in a span of one year, and the number of commits generated in each repository in the morning, evening, and night. The project was implemented in a microservices environment with the data, before passed into ClickHouse, was preprocessed using Spark.

User Tenant Management System

In this project a backend service was created in a microservices environment. The service had two entities: User and Tenant. Two separate API groups for both entities were created using FastAPI which comprised of several types of functionalities such as GET, POST, DELETE, and PATCH. A Kafka Consumer consumes the user/tenant data which is created by the service from a Kafka topic, parses the data, and inserts into the appropriate database table. A postgres database is used to interact with the service via Object Relational Mapping.
Technologies used: Python - Docker - Postgres - Kafka - FastAPI - SQLAlchemy

Hand Written Digit Recognition

Identification of Hand written digits using Logistic Regression Machine Learning Algorithm.

Diabetes Prediction

Prediction of a patient whether he or she has diabetes using K-Nearest Neighbors Machine Learning Classification algorithm.

Stroke Prediction

Prediction of a person on whether he or she will suffer from a stroke using Decision Trees Machine Learning Classification Algorithm.

Gender Classification using Convolution Neural Networks

Classification of individuals based on their faces whether they are male or female through CNNs.

Skills

Machine Learning

Understanding of Machine learning classification and regression algorithms. Practiced in developing machine learning models, data preprocessing, data visualization, model evaluation, model improvement techniques, neural networks, image classification and object detection.
Tools and Technologies
Python - Scikit learn - Numpy - Pandas - Matplotlib - Seaborn - Jupyter Notebook - Tensorflow - Keras - NLTK - PyTorch

Backend Development

Understanding of backend tools and technologies used to create modern day software applications.
Tools and Technologies
Microservices Architecture - Docker - FastAPI - Flask - Kafka - Data pipelines - Spark - ClickHouse

Android Development

Knowledge and practiced in developing mobile applications in Android Studio. Skilled in design, backend development, and documenting work.
Tools and Technologies
Java - Android - XML - Material Design - Databases - Firebase - SQL - Android APIs - JSON - Retrofit - MVVM Architecture

Education

2018-02 - 2022-02

Computer Science, Bachelor of Science

Forman Christian College University, Lahore

CGPA 3.2

2007-09 - 2013-05

O levels and A levels, Pre Engineering

School of International Studies in Sciences and Arts, Lahore

Certifications

Data Science and Machine Learning

PNY Trainings

Android Application Development

PNY Trainings

Object Detection and Recognition

Deep Learning Lab, National Center of Artificial Intelligence, NUST School of Electrical Engineering and Computer Science

Introduction to Image Processing and Computer Vision (ongoing)

Coursera