Qasim Mehmood

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https://qa5imm.github.io/

EDUCATION

Lahore University of Management Sciences (LUMS) – BSc. Computer Science   **2020-2024**
Relevant Courses: OOP, *Data Structures, Algorithms, Software Engineering, Databases,* Operating Systems, *Data Science, Advanced Programming, Machine Learning, Blockchain, Network Centric Computing.*

Professional Experience

Lahore University of Management Sciences - Website Developer
- Worked on the web development of **machine learning** models made for crime investigation lab, a project held by **Higher Education Commission (HEC)** and CSALT lab at LUMS**.**
- The project is aims to be used in **criminal investigations** by the **Government of Pakistan** in inspecting and identifying criminals.
- **Speaker Identification**, **Keyword Spotting**, and **Automatic Speech Recognition** will be used **complementary** in criminal investigation, currently we have successfully **developed** and **tested** the Speaker Identification model. However, the other two **models** are in **making** and will be developed as soon as they are made.

Bookme.pk - Software Engineering Intern
- Worked as a software engineering **intern** at Bookme.pk, Pakistan's **largest** online ticket **selling** platform.
- I practiced **Laravel** and **Vue.js** for website development and **React-Native** for mobile applications.

Projects

- **Food Delivery App (Eat@LUMS)** | *Express.js, React.js, Node.js, Mongo DB, Digital Ocean:* Created a **website** for providing food delivery service to student body at LUMS. It was part of my **Software Engineering** final project. It aims to provide a service like **Food Panda** where students can ask for food delivery from any **eatery** and **fellow students** can deliver the order, however it's LUMS exclusive. Steps were taken for the **convenience** of the student body and to help **financially** challenged students. [Website Demo]
- **Speaker Identification** | *Fast API, React, Tailwind*: Developed a **web-based** implementation of a speaker identification model, incorporating a **REST API.** This system **efficiently** predicts the speaker of a given **test audio** by leveraging a pool of reference **recordings**. In addition to the website, I have designed an **API** that can be integrated into any existing system.
- **Sindh Education Dataset** |*Python*: Implemented **data science** techniques on Sindh Education Dataset , **EDA** followed by **data cleaning.** Also made a **machine learning** model to predict student's enrollment based on school facilities. Wrote **medium article** explaining the entire cycle: [Read Article]
- **UNO Game** | R*eact, TypeScript, React-Redux, Sockets*: Implemented an UNO game that is playable by up to **four** players**. Socket.io** was used for real-time communication between client and server.
- **Artificial Neural Networks** | *Python*: Successfully completed project related to implementation of Neural Networks for fine tuning of weights to predict accurate outcomes. Implemented **forward propagation, backpropagation** and **weights update** from scratch**.**
- **Sentiment Analyzer** | *Python***:** Implemented an analyzer for the detection of positive and negative reviews on several movies based on bag of words and utilizing Naïve Bayes model.
- **Smart Contract (Banking System)** | *Solidity***:** Created a **smart contract** which was further implemented on an **Ethereum** blockchain. The smart contract could **create** an account, **delete** an account, **do transactions** between different accounts i.e., **transfer**, **withdraw**, and accept money.

Professional Skills

- **Programming languages**: JavaScript, Typescript, Python, SQL, PHP, Haskell, C/C++, Matlab, Solidity.
- **Frameworks, tools & libraries:** Laravel, FASTAPI, ReactJS, VueJS, NuxtJS, ExpressJS, NodeJS, Material UI, Tailwind.
- **Machine Learning tools**: Pandas, Scikit Learn, Numpy, Pytorch, TensorFlow and Matplotlib.
- **Databases:** MySQL, MongoDB, Firestore.
- **Cloud & Deployment Tools:** AWS EC2, Nginx, Firebase.

Extra-Curricular Experience

- **LUMS Literary Society** (2021-present): Serving as an **Event head** of **Bethak,** LLS flagship event. It happens **every month** in which we invite people from all over the university to **showcase** their literary skills.