

Qasim Mehmood

24100256@lums.edu.pk | +923216573454 | Lahore, Pakistan | D.O.B: 30th April 2002
<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 **Sep 2022 – June 2023**

- Working 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.

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** and 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** | *React, 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.
- Email Identifier (Spam/Non-Spam)** | *Python*: Created an artificially trained model for the identification of emails as spam/non-spam with the help of a model trained using logistic regression.
- 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

- Development tools and libraries:** ReactJS, Redux/Redux-toolkit, ExpressJS, NodeJS, FASTAPI, Tailwind.
- Programming languages:** JavaScript, Typescript, Python, SQL, PHP, Haskell, C/C++, Matlab, Solidity.
- 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. Event Happens **every month** where we invite people all the over university to **showcase** their literary .