**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  **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](https://www.c-salt.org/) 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](https://oyster-app-jg456.ondigitalocean.app/)]
* **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](https://opendata.com.pk/dataset/sindh-education-statistics) , **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](https://medium.com/@nabihaa579/explaining-education-in-sindh-factors-determining-the-number-of-boys-and-girls-that-attend-school-fd22cb86f284) ]
* **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.
* **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 .