

MUHAMMAD USMAN

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Education

(FAST-NUCES) | Bachelor of Science, Computer Science

09/2019 - 06/2023

Courses: Object-oriented programming, Data Structures, Databases, Applied Machine Learning, Data Mining

Skills

- **Languages:** Python, JavaScript, HTML, CSS, GraphQL
- **Technologies:** Arflow, ETL Pipeline, AWS, Serverless Framework, Power BI, Pandas, Numpy, DBT
- **Databases:** SQL(Postgres, MySQL), DynamoDB
- **Others:** Git, GitHub, REST APIs, Postman, Agile Methodologies, Data Modeling, Data Warehouse, Jira

Professional Experience

Dot Labs | Data Engineer

Lahore, Pakistan

07/2023 – Current

- Managed and optimized relational databases using **Amazon RDS** to store and retrieve large datasets efficiently.
- Successfully enhanced data ingestion processes, reducing system errors by **20%**.
- Focused on implementing serverless architecture using AWS Lambda, building scalable and data processing solutions to improve speed by up to **20%**.
- Migrated workload to **AWS** cloud leveraging **EC2**, **Lambda Function**, **AppSync**, and **S3** for efficient scaling, increasing efficiency by **30%**.
- Develop and maintain **ETL** scripts to ingest **JSON** data from **DynamoDB** via **Kinesis Firehose**, transform it using **Apache Spark** in **AWS Glue**, and visualize insights in **AWS QuickSight**.
- Analyzed critical issues and implemented strategic changes, leading to a **15%** reduction in operational costs and boosting team productivity by **20%**.

Professional Projects

AquaScope | Python, PostgreSQL, AWS, Airflow

[Live Link](#)

- Effectively integrated **GraphQL APIs** with **AWS AppSync** to enable real-time data retrieval and manipulation, improving data accessibility and efficiency across diverse sources.
- Streamlined data processing operations by implementing **AWS Lambda serverless** architectures, adhering to industry best practices, resulting in a **40% reduction in infrastructure costs** and ensuring **optimal performance** in dynamic cloud environments.
- Orchestrated **ETL** pipelines using **Python**, **Pandas**, and **SQL**, integrating seamlessly with **Apache Airflow** on **EC2** to ensure efficient data processing, scalability, and performance.

Academic Projects

FADSS (FYP) | Django, PostgreSQL

[Live Link](#)

- Created a Decision Support System web application that helps FAST automate the financial aid process, integrating machine learning concepts for better decision-making.
- Designed a user-friendly interface using **HTML**, **CSS**, **JavaScript**, and **Bootstrap** to facilitate interaction between students and decision-makers.
- Built a robust backend using **Django** that integrates with machine learning models to provide recommendations about students.

Car Rentz | Php, MySQL

- Developed a web-based platform enabling users to rent cars, featuring user profile management functionalities conveniently.
- Leveraged **PHP** and **SQL** for backend operations, coupled with **HTML**, **CSS**, and **JavaScript** for intuitive frontend design.