

FIZA ASHRAF

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github.com/fizaashraf37 | [Fizaashraf – Medium](https://fizaashraf.medium.com) | [Leetcode](https://leetcode.com/fizaashraf37)

EDUCATION

MIAMI UNIVERSITY, OXFORD

Master of Science in Computer Science; Graduate Teaching Assistant

Ohio, USA

Aug 2024 - May 2026

UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Bachelor of Science in Computer Science; Cumulative GPA: 3.70/4.0

Lahore, Pakistan

Oct 2012 - Aug 2016

SKILLS

- **Languages:** Python | TypeScript | GraphQL | React JS | SQL | HTML | CSS | JSON | XML
- **Databases:** Postgres | MySQL | Oracle SQL
- **Libraries/Frameworks:** Django | Flask | Airflow | Spark | Pandas | Numpy | Pyspark | Pytest | Unittest | Swagger
- **Cloud/Infra:** AWS | Confluent | Terraform | Dockers | Kubernetes | Helm
- **ETL/ELT:** Snowflake Data Warehouse | Spark | Airflow | Iceberg | Kafka | Hue | Debezium | CDC
- **Version Control/Logging and Monitoring:** Git | Bitbucket | Github | Kibana | Datadog | AccessOS
- **Project Management:** JIRA | Confluence | Agile | Scrum
- **Operating Systems:** Windows | MacOS | Linux
- **General:** Backend | Microservices | Distributed Systems | Data Structures | System Design | Open Source

WORK EXPERIENCE

MOTIVE

Remote - San Francisco, USA

Software Engineer - Backend (Data Platform)

July 2023 – Aug 2024

Monorepo to Multi-repo Migration

- Successfully migrated production code for data pipelines and Table API from a monolithic repository to a modular repository, facilitating easier deployment across new regions.
- Collaborated with cross-functional teams to ensure comprehensive testing and validation of the new repository

Deployment and Optimization of Distributed Query Engines and Data Catalog Solutions on Kubernetes

- Conducted PoCs and drafted technical design documents, ensuring efficient infrastructure setup and seamless integration of distributed query engines and data catalog solutions
- Deployed and optimized Spark Thrift Server, Kyuubi, Amundsen, Open Metadata, and Hue on Kubernetes, reducing storage and compute by 30%

Optimization and Efficiency Enhancement of Data Infrastructure

- Debug and refactored complex codebases to remove deprecated code; reduced the number of lines of code by 25,000
- Optimized snowflake compute time and storage, reducing compute cost by 9600\$ per month and storage by 257TB
- Optimized kubernetes resource request usage on staging and production clusters for 40 pipelines, enhancing reliability and reducing CPU requests by 50 cores and memory requests by 50TB
- Terraformed confluent and AWS resources, conducted code reviews, monitored production pipelines during on-call schedules, and assisted teams during channel support in managing data aggregation pipeline failures
- Skills: **Python, Docker, Kubernetes, Terraform, Helm, AWS, Airflow, Spark, Snowflake, Kafka, Debezium, Datadog, Amundsen, Iceberg, AWS Glue, AWS S3, ECR**

AFINITI

Lahore, Pakistan

Software Engineer - Lead Backend Developer

Dec 2020 – July 2023

AI Routing (AIRO) - Feature Extraction and Mailing Service Development

- Developed a feature extraction service in Python to parse nested JSON files, extract key features, and integrate the output with integration service using GraphQL and TypeScript for frontend consumption
- Implemented GraphQL endpoints in TypeScript for a Mailing Service to send daily statistics emails to subscribed users, aggregating data from various data and AI services

TalFlow - ETL Automation and Workflow Orchestration

- Designed and implemented microservices for data ingestion, loading, transformation, and workflow orchestration
- Developed REST APIs with Python and Flask to connect with various data sources such as databases, flat files, APIs, FTP, and SMTP for efficient data ingestion and loading
- Created a transformation service to process and transform data using SQL, Spark, and Pandas and added support for various databases (Oracle, MySQL, Postgres, and SQL server) in data ingestion service using Factory Pattern
- Built a Translation service to store user selections from the front-end into configuration files, converting these files into Airflow DAGs for workflow orchestration
- Integrated testing modules into microservices and wrote test cases using Unittest, achieving over 95% coverage
- Enhanced documentation for Flask endpoints using Flask Swagger Generator; contributed to the Python Flask Swagger Generator library by adding support for nested schemas, query parameters, server URLs, and endpoint grouping
- Mentored a team of 5 software engineers in the backend team, conducted regular code reviews using coding standards
- Skills: **Python, Typescript, GraphQL, Flask, React JS, Pyspark, Airflow, Postgres, Dockers, Kubernetes, Git, Bitbucket, AWS**

FATIMA GROUP

Lahore, Pakistan

Senior Software Engineer M7 - Integrations and Backend

Feb 2020 – Jun 2022

- Integrated Fatima group payment system with Pakistan 1Link payment system for online order bookings; generated 10 million rupees of orders within the first week of App Go Live; received IT GEM award for the quarter
- Designed and Developed backend APIs and microservices to automate many manual processes including order booking, proof of delivery, shipment tracking, and payments; reduced time for proof of delivery from one week to 5 minutes
- Led the transition to paperless practice by implementing integration solutions to integrate on-prem applications with cloud applications; reduced the wait time of shipments from 12 hours to 5 minutes and cost by 40%
- Participated in full product lifecycle including idea generation, requirements gathering, design documents, prototyping, execution, deployments, and shipping
- Skills: **Python, Django, Oracle SQL, SVN, Oracle EBS, Oracle Transportation Management, Oracle Integration Cloud, and Oracle Transactional Business Intelligence**

AL KHAWARIZMI INSTITUTE OF COMPUTER SCIENCE

Lahore, Pakistan

Research Intern

Dec 2019 – Feb 2020

- Conducted in-depth research in Computer Vision, focusing on Deep Learning and Convolutional Neural Networks.
- Led projects in vehicle detection and counting, license plate recognition, and signal automation
- Authored a comprehensive comparison paper on state-of-the-art object recognition frameworks
- Skills: **Tensorflow, Keras, Neural Networks, Deep Learning, Computer Vision, Fast RCNN, YOLO**

OZI TECHNOLOGY

Lahore, Pakistan

Software Engineer - Game Developer

Jan 2018 – Sep 2018

- Developed 15, 2D and 3D games for Android and IOS using **C#** and **Unity3D**; increased revenue by 10%.
- Worked and collaborated with game designers, UI designers, animators, and marketing teams to deliver quality results under strict deadlines

NATIONAL ENGINEERING AND SCIENTIFIC COMMISSION OF PAKISTAN

Lahore, Pakistan

Assistant Manager - IT

Oct 2017 – Jan 2018

- Selected as the top 2nd applicant in the organization out of thousands of applicants.
- Conducted research and development for missile launch systems

OZI TECHNOLOGY

Lahore, Pakistan

Software Engineer - Game Developer

Oct 2016 – Oct 2017

- Developed 25, 2D and 3D games for android and IOS using **C#** and **Unity3D**; Got 10 million downloads on 5 games

VOLUNTEER EXPERIENCE

INSTRUCTOR AT iCODE GURU

Jan 2023 - Present

Taught Data Structures and Algorithms to 100+ students for 300+ hours

CERTIFICATIONS

AMAZON WEB SERVICES - [AWS Certified Cloud Practitioner](#)

Sep 2022