Muhammad Tayyab Iqbal

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Education

Comsats University — Lahore, Pakistan
Bachelor of Science in Computer Science — *May 2015 – Jan 2020*
Relevant Courses: Advanced Programming, Software Engineering, Object-oriented Programming, Data Structures, Algorithms, Machine Learning, Data Science, Data Mining, Network Security, Distributed Systems

Bahria University — Lahore, Pakistan
Masters of Science in Project Management — *September 2021 – May 2023*
Relevant Courses: PMBOK 6th edition principles, Cost Finance Management, Project Planning, Monitoring and Control, Risk Management, Agile Methodologies

Projects

Kirubot | *GenAI, Web Scraping, FastAPI, Postgres, Qdrant* — February 2025 – July 2025
- Led architecture and development of automated pipelines to scrape and structure business data from client websites.
- Oversaw backend integration for an AI chatbot delivering real-time, context-aware responses from website and PDF knowledge.
- Designed and optimized the vector-embedding and semantic search system using a scalable vector database.
- Directed delivery of a self-serve onboarding and embeddable script enabling seamless chatbot deployment for clients.

Open Panacea | *GraphQL (Ariadne), FastAPI, NextJS, PostgreSQL, AWS S3, API Gateway* — July 2024 – Dec 2024
- Developed a management portal for care managers to oversee patient records, care plans, and goals
- Simplified patient management and improved care quality with a dynamic UI powered by NextJS
- Backend supported by FastAPI and GraphQL for efficient data handling
- Utilized PostgreSQL for secure and reliable data management

Volocopter | *Micro-service architecture, Django, FastAPI, PostgreSQL, PyTest, Kafka* — May 2023 – Nov 2023
- Contributed to the development and testing modules of an air mobility service for flying drones
- Developed the planning module to assist flight planners with validations
- Implemented the testing module for simulations and integration tests of major services
- Improved operations using multi-processing to optimize complex validation processes

Immersive Fox | *Django, PostgreSQL, ReactJS, AWS Lambda, AWS S3, GCP Cloud Run* — Dec 2023 – Jun 2024
- Developed an AI-driven platform for converting text into multilingual business videos
- Supported over 50 languages for global outreach
- Enabled personalized video creation with digital avatars and voice cloning
- Integrated seamlessly with CRM systems like HubSpot to enhance marketing strategies

Stealth E-Commerce | *Django, React, MySQL, Git, Postman, Heroku* — Feb 2022 – Dec 2022
- Developed a three-tier E-commerce web application
- Designed Schema for SQL database and implemented RESTful apis in the backend
- Enabled clients to manage multiple platforms or store departments with a unified UI/UX
- Used JSON Web Tokens (JWT) for authentication

Seyara App | *GraphQL API, FastAPI, PostgreSQL, Strawberry, Alembic, Stripe* — Mar 2024 – Dec 2024
- Developed the backend for a home car delivery service using FastAPI and GraphQL APIs
- Designed a system for seamless car service booking at the customer's location and availability
- Implemented stripe for payment processing to streamline operation

BDJ Trucking | *DRF, ReactJS, PostgresQL* — Jan 2024 – Aug 2024
- Developed a trucking application for custom pickup and delivery services
- Integrated a robust backend using Django REST Framework (DRF)

- Built a ReactJS frontend for real-time order management and tracking

Crude Oil Price Prediction | *Python, Flask, Jinja2, Google OAuth, MySQL* Feb 2019 – Jan 2020

- Developed a Flask web portal for crude oil price prediction using regression models and the K-Means algorithm
- Implemented user/admin roles with CRUD operations for users, datasets, and dynamic duration management
- Integrated MySQL database for efficient data storage, retrieval, security, and authentication
- Wrote extensive documentation of the project as my final year project
- Integrate frontend and backend after completion of every module
- Used Postman for unit testing and carried out manual quality assurance of the app

Eye Ball Movement Detection | *MATLAB, Image Processing* Sep 2018 – Jan 2019

- Developed a retina detection system using image processing in MATLAB
- Implemented tracking of movement along horizontal and vertical axes
- Integrated UI along with all image processing algorithms
- Achieved precise movement tracking down to a 2mm difference

Voucher Redemption | *Flask, Jinja2,HTML/CSS, Bootstrap, MySQL* Jun 2021 – Sep 2021

- Developed a web portal for redeeming system-generated voucher codes
- Implemented multiple database connections with security measures to protect voucher codes
- Ensured secure and reliable handling of voucher redemption and crypto transactions
- Converted voucher codes into crypto assets for Web3 wallets

Work Experience

Nuclieos | *Senior Software Engineer* Aug 2024 – July 2025

Skills: FastAPI, GraphQL (Ariadne), Django, NextJS, ReactJS, TypeScript, AWS (S3, Amplify, EC2)

- Designed and implemented scalable backend solutions using FastAPI and GraphQL, ensuring efficient data handling.
- Built interactive and dynamic UIs with NextJS and ReactJS, improving user experience.
- Managed database design and optimization using PostgreSQL, ensuring data integrity and security.
- Collaborated closely with cross-functional teams and led technical discussions to refine project requirements.
- Directly engaged with clients to gather requirements, provide updates, and ensure seamless project delivery.
- Oversaw deployment and cloud infrastructure using AWS services, ensuring system scalability and reliability.

Expert System Solutions | *Senior Software Engineer* Dec 2023 – Jul 2024

Skills: Python, Flask, MySQL, Automation, Openpyxl, Bash

- Developed the back-end and front-end of an AI-driven platform for converting text into multilingual business videos, supporting 50+ languages for global outreach.
- Enabled personalized video creation with digital avatars and voice cloning, enhancing user engagement.
- Enabled personalized video creation with digital avatars and voice cloning, enhancing user engagement.
- Integrated with CRM systems like HubSpot to improve marketing automation and customer outreach.
- Designed a scalable back-end with Django and PostgreSQL and built an intuitive ReactJS front-end.
- Led requirement analysis, client communication, and cloud deployment on AWS and GCP for scalability and performance.

ILI Digital | *Senior Software Engineer* Mar 2023 – Nov 2023

Skills: FastAPI, Django, PostgreSQL, Kafka, PyTest, Microservices, Data Processing, API Development, Client Communication

- Contributed to the development and testing of an air mobility service for flying drones.
- Built a planning module to assist flight planners with validations and optimizations.
- Developed a testing module for simulations and integration tests of major services.
- Optimized complex validation processes using multi-processing for improved efficiency.
- Worked closely with global startups, providing technical insights and ensuring stakeholder satisfaction.

Stack Intel | *Python AWS Engineer* Mar 2021 – Dec 2022

Skills: Python, Flask, DynamoDB, AWS (Lambda, S3, Serverless, Batch Jobs), WordPress Plugin Development, API Development, Cloud Deployment

- Developed a WordPress backup and restore plugin using Python Flask, enabling manual and scheduled backups.
- Integrated AWS Lambda, Serverless, and Batch Jobs for efficient execution and automation.
- Stored backup files in AWS S3 and managed metadata using DynamoDB for reliability.
- Optimized the backup and restore process, ensuring scalability and seamless user experience.
- Worked with startups globally, providing technical expertise and ensuring stakeholder satisfaction.

Seamless Distribution Systems | *Associate Software Engineer* Feb 2022 – Feb 2023

Skills: Python, Flask, MySQL, Automation, Openpyxl, Bash

- Integrated a Java-based BI reporting tool into an ERP system for custom reporting.
- Used Logstash to load data into Elasticsearch, with a scheduled Java aggregator processing and storing results in MySQL.

Seamless Distribution Systems | *System/DevOPS Engineer* Feb 2019 – Jan 2022

Skills: Ansible, CentOS, Linux Administration, Networking, Python, Flask, Bash, Docker, Jira, Automation, System Administration, Client Communication

- Provided L2 technical support for Linux, networking, and system administration issues.
- Automated report generation and document processing using Python, Flask, openpyxl, and python-docx.
- Developed deployment automation scripts using Ansible, Bash, and Docker.
- Managed server administration, network configurations, and system security.
- Worked directly with clients, handling technical communication and requirement gathering.

Technical Skills

Languages: Python, Javascript, HTML/CSS, Bash, SQL, Java, Jinja2
Frameworks: Django, FastAPI, Flask, React, MongoDB, MySQL, ELK stack
Developer Tools: Git, Postman, Trello, PyCharm, WorkBench, Google Colab, Jupyter Notebook
Libraries: SQL-Alchemy, Alembic, multiprocessing, PyWinAuto, Pandas, NumPy, Scikit-learn