

HAFIZ MUHAMMAD FURQAN AZHAR

Backend Developer | Django · DRF · Docker · Python | Lahore, Pakistan

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PROFESSIONAL SUMMARY

Backend-focused Full-Stack Developer with production experience building scalable applications using Django REST Framework, Node.js, TypeScript, PostgreSQL, Redis, and Socket.IO. Experienced in designing REST APIs, implementing real-time messaging and presence systems, integrating third-party services, and deploying containerized applications with Docker, Nginx, and Linux. Comfortable owning projects from requirements gathering and system design through development, documentation, testing, and production deployment. Currently pursuing an M.S. in Computer Science while delivering production systems through freelance and professional roles.

TECHNICAL SKILLS

Backend & APIs	Node.js, Express, Prisma, Django, Django REST Framework, FastAPI, REST API Design, Database Design, API Documentation, System Design
Product Engineering	React, TypeScript, TanStack Start, TanStack Router, TanStack Query, Tailwind CSS, Vite
Databases & Real-Time	PostgreSQL, MySQL, MongoDB, Redis, Socket.IO
DevOps & Delivery	Docker, Linux, Nginx, Server Configuration & Deployment, Claude, OpenAI Codex, Code Review, Automated Verification
Languages	Python, JavaScript, TypeScript, C++, Java (basic)
ML / CV	Graph Neural Networks (GNN), Computer Vision, Scikit-learn, Basic ML Pipelines
Data & Automation	Scrapy, BeautifulSoup, Pandas, Data Cleaning, Data Visualization
Version Control	Git, GitHub branching, PRs, collaborative workflows
Soft Skills	Client Communication, Requirements Gathering, Technical Documentation

PROFESSIONAL EXPERIENCE

Full Stack Developer (Contract)

May 2026 – Present

Contract Based Work

- Developed a scalable Node.js/TypeScript backend with PostgreSQL, covering authentication, user profiles, company booths, job applications, progression, and virtual currency systems.
- Built real-time social features using Socket.IO and Redis, including friendships, direct messaging, online presence, room joining, capacity controls, and live event delivery.
- Integrated Unity WebGL with the React/Vite dashboard through secure launch tickets, session renewal, and a browser-to-Unity communication bridge.
- Containerized and deployed the platform using Docker Compose, Nginx, PostgreSQL, and Redis, supporting production-ready WebSocket traffic and automated database migrations.
- Improved reliability and developer experience through automated testing, Swagger/OpenAPI documentation, idempotent APIs, validation, error handling, and integration guides.

Backend Developer

Oct 2025 – Apr 2026

Zweidevs (Pvt) Ltd

- Owned end-to-end backend development from day zero: system architecture, data modelling, and production deployments for multiple projects.
- Designed and delivered production REST APIs using Django REST Framework, enabling mobile and web client integrations.
- Integrated third-party ERP systems and internal services via REST/SOAP adapters and message-based pipelines, ensuring reliable data sync and reconciliation.
- Implemented background jobs and asynchronous processing (Celery, Redis) for long-running tasks, scheduled reports, and robust retry logic.
- Containerised applications with Docker and managed CI/CD pipelines, reducing environment inconsistencies and accelerating deployments across staging and production.

- Led client-facing requirement sessions and translated business needs into technical specs, reducing scope creep and cutting revision cycles by ~30%.
- Maintained technical documentation, monitoring/observability (logs & metrics), and acted as the bridge between clients and engineering.
- Enforced Git-based branching strategies (feature branches, PRs) and mentored team members on backend best practices.

Freelance Data Mining Specialist

Oct 2024 – Jan 2025

Remote

- Built automated scraping pipelines using Scrapy and BeautifulSoup, collecting structured datasets for ML training.
- Processed and cleaned 10,000+ records across multiple projects, ensuring data quality for downstream ML workflows.
- Delivered visualisation reports summarising scraped data trends using Matplotlib and Pandas.

Web Development Intern

Jul 2022 – Aug 2022

TechAbout Private Limited

- Assisted in frontend and backend development tasks, gaining foundational full-stack experience.
- Contributed to 2 internal web features under senior developer mentorship.

PROJECTS

GNN-Based Floor Plan Line Segment Parser (Bachelor's FYP)

Early 2025

Tech: Python · Graph Neural Networks · Computer Vision · Django · REST API · React (frontend)

- Designed and implemented a Graph Neural Network pipeline to parse and classify line segments from architectural floor plan images a computer vision research problem.
- Built a full-stack system: Django REST Framework backend exposing inference endpoints, paired with a React frontend for real-time floor plan upload and visualisation.
- Achieved end-to-end inference with GNN model, handling image pre-processing, graph construction, and segment classification.
- Structured the codebase with clear separation of concerns model, API layer, and UI enabling independent testing of each component.

github.com/969Furqan/floorplan-front-end-and-backend

Preference-Oriented Fixed-Priority Scheduler

Late 2025

Tech: Python · Real-Time Scheduling · Algorithm Implementation · OS Concepts

- Implemented a real-time task scheduling algorithm from academic research, modelling preference-based fixed-priority assignment for multi-task systems.
- Translated formal algorithmic proofs from the source paper into working, tested code demonstrating strong ability to read and apply academic literature.
- Validated scheduler behaviour against the paper's test cases, confirming correctness of priority assignment and schedulability analysis.

github.com/969Furqan/Preference-Oriented-Fixed-Priority-Scheduler

Freelance Web Scraping Pipelines

Oct 2024 – Jan 2025

Tech: Python · Scrapy · BeautifulSoup · Pandas · Data Cleaning

- Built multiple end-to-end scraping pipelines for client datasets, automating data collection from dynamic and static web sources.
- Handled pagination, anti-bot measures, and structured output (CSV / JSON) for direct ML ingestion.
- Delivered clean, labelled datasets used for training and evaluation of ML models.

github.com/969Furqan/scraping-work

CERTIFICATIONS

Crash Course on Python

Google (Coursera) · Nov 2025

Understanding Prompt Engineering

DataCamp · Mar 2026

AI Ethics

DataCamp · Apr 2026

Using Python to Interact with the OS

Google (Coursera) · Nov 2025

Writing in the Sciences

Stanford University · Mar 2026

EDUCATION

Master of Science in Computer Science (In Progress)

2025 – 2027

National University of Computer and Emerging Sciences

Bachelor of Science in Computer Science

2021 – 2025

COMSATS University Islamabad

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Machine Learning, Web Technologies, Distributed Systems