

Haffi Mazhar

Senior Software Engineer, Python

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EXPERIENCE

Senior Software Engineer (Autonomous Vehicles Remote Assist)

Oxa

09/2024 - Present Oxford, United Kingdom

- Architected and built multi-client video streaming and remote control with WebRTC; enabled fleet-wide teleoperation across regions and AV platforms.
- Achieved sub-200ms video latency and bidirectional messaging latency to less than 50ms using WebRTC (H.264/VP9 over UDP) across fibre, 4G, and Starlink.
- Deployed real-time WebSocket service on GCP Cloud Run using FastAPI, Redis, and Cloud SQL, scaling to concurrent vehicle/operator sessions with strong connection reliability.
- Provisioned GCP Cloud SQL, Redis, and PubSub infrastructure with Terraform IAC.

Founding Engineer (Part-time Venture)

EggMonkey

2024 - 2026 Boston, United Kingdom

- Took a consumer sports platform from concept to production and generated £20k total revenue and £1.3k monthly recurring revenue, owning product discovery, architecture, and delivery across the customer experience and internal operations.
- Partnered directly with the CEO to translate vague customer needs into scoped, high-value product features and a pragmatic technical roadmap; recruited and managed UI/UX and customer-service hires to expand the team.
- Designed and built the full-stack platform from scratch with Next.js, React, TypeScript, Node.js, and PostgreSQL, including authentication, onboarding, player profiles, fixture booking and matchmaking, subscriptions, football video highlights, and an operations-focused admin portal.
- Architected the cloud infrastructure, including Stripe payments and subscriptions, Mux video streaming, S3, SES notifications, Vercel hosting, and DNS.

Backend Python Developer

Move.ai

10/2023 - 08/2024 London, United Kingdom

- Shipped multi-tenant SaaS services using FastAPI on AWS Lambda, integrating DynamoDB, Stripe, and Auth0.
- Added Datadog performance dashboards and standardized CI/CD in GitHub Actions; improved deploy reliability and visibility.

Backend Python Developer

Bink

01/2022 - 10/2023 Ascot, United Kingdom

- Delivered retailer APIs using FastAPI/Django, Postgres, Redis, and RabbitMQ for digital loyalty; supported ASOS launch issuing tens of thousands of vouchers.

Software Engineer - Performance

Sky

11/2019 - 12/2021 Leeds, United Kingdom

- Optimized Sky Identity handling spikes up to approximately 10 million concurrent users; drove scaling, resource tuning, and load balancing.
- Introduced creative performance testing methods such as chaos and failover testing for APIs serving approximately 15 million concurrent users.

EDUCATION

MSc - Engineering, Technology and Business Management

University of Leeds

2018 - 2019 Leeds, United Kingdom

B.Eng. - Mechanical Engineering

University of Nottingham

2015 - 2018 Nottingham, United Kingdom

FIND ME ONLINE

LinkedIn
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GitHub
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SUMMARY

Software Engineer with over 7 years of experience in backend development and real-time systems. Strong track record of high-impact transformations and delivering in fast-moving projects. Expert in FastAPI services and cloud deployments with proven ability of performance tuning python services, reliability improvements and performance testing at high scale. Currently seeking opportunities to support leading edge technology and transformation initiatives.

KEY ACHIEVEMENTS

Low Latency Achievement

Achieved sub-200ms live video latency for fleet-wide teleoperation across regions using optimized WebRTC pipeline.

High Concurrent Users Support

Developed features for 15 million concurrent users in performance testing framework at Sky platform.

High-impact transformation

Upgraded several cloud micro services to latest Python version with zero downtime. Leading to cross team productivity gains

Successful Retailer Launch

Led ASOS product launch features, resulting in 10,000s vouchers issued for digital loyalty scheme.

SKILLS

Python FastAPI C++ Go FastAPI

Real-time systems

Websockets WebRTC gRPC

Reliability & Performance

Latency reduction Load testing

Chaos/failover testing Horizontal Scaling

Cloud & Infrastructure

Kubernetes AWS Lambda PostgreSQL

DynamoDB Redis RabbitMQ IAM

Terraform Grafana Prometheus

LANGUAGES

English
Native

Urdu
Native

Hindi
Proficient