

AbdulRahman Alian

London, UK | 07366397147 | abdulalian201@gmail.com
linkedin.com/in/aalian | github.com/ghoui

Software and data engineer building agent tooling and production applications in Python and TypeScript. Creator of WinReach, an open-source MCP server for remote Windows execution and desktop interaction, with experience in agent orchestration, data migrations and production debugging.

Selected Agent Engineering Projects

WinReach - Remote Windows MCP Server | TypeScript, MCP, PowerShell

- Built an open-source HTTP MCP server enabling agents to use a remote Windows machine through PowerShell, persistent sessions, bidirectional file transfer, screenshots and desktop control.
- Implemented per-user bearer keys and role-based access, command allow/deny policies, mutual TLS and append-only audit logging; supported Cloudflare Tunnel connectivity without inbound firewall openings.

Flugel - Agentic Marketing Platform, MTRX Media | 2025

- Built a production TypeScript/Next.js platform using Claude Agent SDK, implementing the agent loop, tool calling, pre/post-tool hooks, session memory and streamed tool events over SSE.
- Integrated subprocess tools for FFmpeg, text-to-speech and lip-sync, with timeout handling and retry/back-off; delivered an autonomous brand-research workflow reducing report time from 4+ hours to 10 minutes.

CarPalDamage | Python, PyTorch, FastAPI, OpenAI API

- Built car-part identification and damage-severity models with a React Native app; integrated vehicle verification and Redis caching into FastAPI, reducing backend response times by 60%.
- Developed an OpenAI-powered agent to gather and compare repair prices from web sources for repair-cost estimation.

Experience

Data Engineer | Feb 2026 - Present

SCSK Europe Ltd. | London, UK

- Delivered a controlled schema migration across millions of records using dbt migrations, batched backfills and indexing; validated changes in a cloned environment and maintained a rollback path.
- Diagnosed slow queries and missing or incorrect data using SQL, logs and reproducible tests, then monitored production after release to validate fixes.
- Built API-driven pipelines into Azure SQL and Azure Data Lake; modelled and validated operational datasets with dbt.
- Engineered observable agents that query databases, call APIs and tools, generate reports and execute user-directed workflows with permission controls and human approval.
- Supported multi-tenant Python, TypeScript and Next.js applications across AWS and Azure, contributing to data-layer architecture, code reviews and client enhancements.

Research Assistant (Part-time) | Jul 2025 - Present

Birmingham City University | Birmingham, UK

- Built a deep-learning image-quality classifier achieving 94% validation accuracy; used ResNet and EfficientNet transfer learning to reduce training time by 40% while maintaining accuracy.

Software Engineer (Contract) | Jan 2025 - Sep 2025

AFJ Ltd | Birmingham, UK

- Built a cross-platform React Native application for mechanics and drivers, supporting vehicle inspections, maintenance tracking and pickup navigation; integrated APIs to expose core system data.

Software Engineer | Dec 2024 - Apr 2025

Birmingham and Solihull United | Remote

- Developed a Flutter health application for iOS and Android with cloud backend services and real-time updates; incorporated stakeholder and post-launch feedback through testing and releases.

Software Developer (Contract) | Jan 2023 - Jun 2023

The Horizon Group | Remote

- Built customer purchase and order-management features, including real-time order tracking, and collaborated with designers on the user interface.

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL, C#, Java

Agents & ML: MCP, tool calling, Claude Agent SDK, OpenAI API, PyTorch, TensorFlow

Backend & Data: FastAPI, Node.js, PostgreSQL, MySQL, SQL Server, Redis, dbt, Azure SQL/Data Lake

Applications & Delivery: Next.js, React Native, Flutter, Docker, Git, CI/CD, Vitest, AWS, Azure

Education

Birmingham City University - MSc Advanced Computer Science | Sep 2024 - Sep 2025

Aston University - BSc Computer Science | Sep 2020 - Jun 2023