

## EXPERIENCE

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### Software Engineer

Dec 2024 – Present

RealityMine, Manchester, UK

- Built agentic server alarm and diagnostic automation, cutting MTTR from ~60 minutes to a few minutes (estimated ~£500k in manual hours).
- Automated client configuration via internal agentic tooling, saving ~350+ hours/year by standardizing repeatable setups.
- Optimized a ~600GB/day data pipeline, improving throughput by ~86%.
- Reduced legacy system alarms/crashes by ~95% through reliability improvements.

### Research Intern

Jul 2024 – Aug 2024

Google DeepMind, Birmingham, UK

- Co-developed the Adaptive Memory RAG (AMRAG) framework integrating self-checks and web search, improving response accuracy by 88%.
- Applied decomposition, QA context generation, hallucination detection, and retrieval augmentation.
- Achieved sub-5-second response times, outperforming standard RAG baselines.

### Teaching Assistant (College of Engineering and Physical Sciences)

Oct 2023 – Jul 2024

Aston University, Birmingham, UK

- Mentored 10+ student teams (6 members each) in OOP, emphasizing best practices.
- Led 8+ hands-on workshops on advanced OOP topics (30–50 students per session).

## EDUCATION

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### Aston University, Birmingham, UK

Sep 2021 – Sep 2024

BSc Computer Science (*First Class Honours, 4.0 GPA*)

## SKILLS & CERTIFICATIONS

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**GenAI:** AWS Bedrock, LangChain/LangGraph, LlamaIndex, tool calling, structured outputs, prompt-injection mitigation, RAG, Pinecone, pgvector

**Stack:** FastAPI, Django, Flask, Spring Boot; React, Next.js

**Infra/Data:** AWS, Docker, Linux, CI/CD pipelines; PostgreSQL, MySQL, MongoDB; Firebase, Redis, RabbitMQ

**Languages/Certs:** Python, Java, JavaScript, C#, PHP, C++; Google Cybersecurity Certificate; AWS Solutions Architect (in progress)

## PROJECTS

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### Katsu

- Built an agentic server-ops system cutting MTTR from 1–2 hours to minutes using orchestrated ReAct task/checklist workflows with automated verification.
- Implemented secure multi-agent remediation (prompt-injection defense, SSH session pooling) and optimized runtime to ~\$0.02/request for always-on alarm resolution.

### Nova

- Multi-agent automation platform for accounting firms: document processing, data extraction, and compliance checks.
- Includes VAT validation, duplicate detection, tool-calling assistant, and an end-to-end audit trail with entity tracking.

### Flashbits (Sold)

- Swipe-based mobile interview prep app with AI-generated quizzes, spaced repetition, and a recommendation engine across 14 DSA topic categories.
- Gamified XP/ranks, analytics dashboard, and company-specific filtering; shipped 1,700+ curated MCQ-style problems.

### Arc

- Multi-agent productivity assistant for task decomposition, day planning, and calendar orchestration with conflict resolution.
- Adaptive scheduling and user analytics to balance workload and improve follow-through.

More projects at faranz.com.