Sergio Sediq

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Education

Manchester Metropolitan University	Sep 2024 - Sep 2025
Master of Science in Computer Science	*GPA: 3.82*

Work Experience

The Co-operative Bank — Sep 2022 − Present
Technical Support Specialist — *Manchester, UK*

- Supported and monitored business-critical **production systems** in regulated financial environment, resolving **100+** incidents per month across **authentication**, **online banking**, and backend infrastructure
- Led incident triage, **root-cause analysis**, remediation, and post-incident reviews across distributed systems; collaborated with **backend engineers**, **vendors**, and platform teams to escalate, validate fixes, and restore reliability
- Managed account lifecycle and system state synchronization via **ITSM** tooling, reducing mean resolution time by **30%** and repeat incident rate by **25%** through runbook automation and security and compliance processes

Peltarion — Jan 2021 − Apr 2021
Software Engineer Intern — *London, UK*

- Owned end-to-end development of a production-grade service using **AWS CDK (TypeScript)** and **Java**-based **AWS Lambda** functions, automating manual campaign management and scaling to **6M+** emails/day
- Launched with **AWS CloudWatch** dashboards used daily by the Ring marketing team, cutting costs by **$8K+** monthly and saving **80+** hours of manual work each week
- Integrated with live systems processing **40M+** events/day by connecting **AWS SNS** and **SQS** to internal services and persisting artifacts in **AWS S3**, reducing campaign processing time by **23%**

Outlier — May 2020 − Sep 2020
Machine Learning Engineer Intern — *Remote*

- Built a **Python NLP** pipeline with **scikit-learn**, **spaCy**, and **NLTK**, then productionized it as a **Flask API** with **Redis** caching, cutting processing time from 5 to 3 minutes across **1,200+** requirements per month
- Engineered **BERT**-based dependency extraction for requirement lists, improving project planning efficiency by **37%**

Outlier — May 2019 − Sep 2019
Backend Engineer Intern — *Remote*

- Built **30+ AWS Lambda** functions and **15+ Step Function** workflows using **REST API** integrations to improve reuse and reliability, reducing execution time by **65%** and saving **$1K** per large scale deployment
- Built a **Spring Boot** app, containerized with **Docker**, and deployed on **AWS EC2**, serving **30+** stakeholders

Projects

On-Orbit Collision Predictor | *Source Code* — **Django | Next.js | MATLAB**

- Built a full-stack **ML-powered** satellite collision prediction system for space agencies, analysing CDM data and calculating orbital collision probabilities
- Developed with **Django** backend, **Next.js** frontend, and **MATLAB** for orbital mechanics, featuring 3D risk visualizations for orbital analysis

MyHealthPal | *Source Code* — **Next.js | Spring Boot | Flask**

- Built a full-stack **AI-powered** health companion for virtual care, providing personalised guidance and unified health insights across the platform
- Developed with **Next.js** frontend, **Spring Boot** backend, and **Flask**-based AI service, featuring seamless cross-service integration and **AI**-driven workflows

AI Studio | *Source Code* — **FastAPI | Vercel AI SDK | TypeScript**

- Built an **AI agent boilerplate** with **FastAPI** backend and **Vercel AI SDK**, enabling rapid development of LLM-powered applications
- Architected backend APIs for AI workflows, demonstrating production-ready patterns for integrating **LLMs** and **AI agents** into full-stack applications

Technical Skills

Languages: Python, Java, JavaScript, Go, C, SQL, HTML5, CSS, Swift, VHDL

Developer Tools: Git, Docker, AWS, Azure, Postman, Jira, PowerBI

Libraries/Frameworks: Spring Boot, Django, Flask, FastAPI, ReactJS, NextJS, VueJS, NodeJS, PostgreSQL

Machine Learning: scikit-learn, spaCy, NLTK, BERT, PyTorch, TensorFlow, XGBoost, LLMs