Manik Aggarwal

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EDUCATION

2021–2025	Integrated Master's in Computer Science at **King's College London**	(1st Class Honours)
	Dissertation: [Public Health Insights through Graph Theory and Search Games]	

WORK EXPERIENCE

Backend Software Engineer - Canonical <div align="right">June 2025 - Present</div>

– Designed and delivered a division-wide workflows repository in Go, now used as a template by multiple teams and hosting all workflows for the platform.
– Replaced minute-loop polling with resilient **Temporal** parent/child workflows and retry policies, handling hundreds of syncs daily with fewer transient failures and manual interventions.
– Migrated CI/CD from Jenkins to **GitHub Actions** across 3–4 repositories, reducing build-publish-refresh time from **90 to 15 minutes** (**86%**) and speeding up engineering iteration.
– Built **gRPC APIs** for complex legacy pricing and edge-case business logic; authored an ADR for Temporal adoption and delivered Juju, network routing, proxy configuration, private registry and SSDLC guardrails.

Full-Stack Software Engineer Intern - Verisk Analytics <div align="right">June 2024 - August 2024</div>

– Built interactive chart configuration in Wagtail (Django) CMS, enabling analysts to preview and embed visualisations in reports (adopted by 10 analysts with positive feedback).
– Designed REST APIs handling large data volumes; serialized configurations for Angular frontend to render live graphs.
– Upgraded legacy codebase (Angular) to latest version, reducing platform load times by **65%**.

DevOps Engineer Intern - Hewlett Packard <div align="right">April 2023 - September 2023</div>

– Built browser-based KVM viewer with Cloudflare and Azure AD authentication, reducing VM provisioning time to engineers by **92%** and eliminating a major manual pain point.
– Automated infrastructure provisioning using Terraform and Perl scripts.
– Developed Perl/Mojolicious web server to streamline PDU management workflows.

PROJECTS

AWS Impact Accelerator Program <div align="right">October 2024–March 2025</div>

– Developed a storybook management mobile app for Staffordshire Council, reducing manual paperwork by **85%**.
– Built with React Native (Expo), AWS S3 and Cognito to simplify field use and improve day-to-day workflow speed.
– Deployed Python OpenAPI services as Docker containers to EC2 via ECR.

Contract Negotiation Automation Tool (Ashurst) <div align="right">February 2024</div>

– Built system to automate contract draft comparison using OpenAI APIs for change detection and summarization.
– Developed Next.js frontend and Go/Gin backend generating blackline PDF comparisons stored in AWS S3.
– Delivered MVP improving per-contract review cycle from **2 weeks to 3 days** across **20–30** review cycles.

PROFESSIONAL SKILLS

Languages	Go, Python, Scala, Perl, Bash, C++, Java, JavaScript/TypeScript, Rust, SQL, Haskell
Frameworks	Temporal, gRPC, Gin, Django, React, React Native, Mojolicious, Node.js
Infrastructure	GitHub Actions, Docker, Terraform, PostgreSQL, AWS (S3, EC2, Cognito, ECR), Cloudflare, Linux