

Richie Moluno

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CAREER PROFILE

Software Engineer with over 5 years of experience specialising distributed systems across fintech, trading, market research, edutech and other industries. My passion lies in transforming complex technical challenges into impactful, business-driving solutions. I excel in both structured and startup environments working on distributed architectures while consistently prioritising performance, reliability, and rapid feature delivery. As a "force multiplier," I guide cross-functional teams and influence architectural decisions to achieve ambitious goals, while continuously fostering technical excellence and driving continuous learning.

SKILLS AND INTEREST

AI agent / LLM infra: **LLM workflow engines, tool-calling agents, MCP, prompt engineering, workflow orchestration**
Languages: **Python, Golang, TypeScript, ReactJS** JavaScript, Native, PHP
Backend development: NodeJS, RESTful APIs
Databases: **PostgreSQL, MongoDB (No SQL), Redis.**
Ops & observability: **OpenTelemetry, Grafana, Prometheus,** Loki, Tempo, Docker, GitHub Actions, CI/CD.
Cloud platforms: **Amazon Web Services (AWS), Google Cloud Platform (GCP).**
Others: Code reviews, technical **documentation**, testing (unit, integration).

WORK EXPERIENCE

- Software Engineer - [Discuss.io](#), London, United Kingdom.

July 2025 - Present.

 - Designed and implemented a modular, method-agnostic **AI evaluation** system (Single Judge, **LLM Council**) to improve the faithfulness of **AI-generated** insights across core platform workflows.
 - Directly protected over **\$300k+** in pipeline revenue by resolving critical bugs during live client trials and pilots for enterprise accounts.
 - Worked directly with **client** teams during **pilots** to debug session-quality issues in real time.
 - Owned incident response and post-incident documentation for platform-wide video service outage (running **thousands** of live real-time sessions per day): coordinated stakeholders and shipped mitigating workaround in 30 minutes, then drove permanent fix including proactive blast-radius analysis to pre-empt downstream reporting failures before they surfaced.
- Software Engineer - Appcentral Group, Lagos state.

Dec 2023 - June 2025.

 - Engineered the core transaction engine for a B2B bill **payment** aggregator serving Nigeria's largest **financial** institutions. Redesigned the processing pipeline using **Apache Kafka**, increasing throughput from **330 TPS to 5,000 TPS** - a **15x** improvement with configurable, rule-based retry and fallback logic across multiple vendors.
 - Architected a rule-driven, no-code **workflow orchestration** platform for utility payments (airtime, bills), replacing hardcoded vendor integrations that required dedicated engineering effort per partner. Reduced onboarding time from **3-7 days to under 10 minutes**, enabling 8 new vendor integrations and 4 major **bank** partnerships.
 - Designed and implemented a realtime alert delivery system using **Apache Kafka**, which reduced critical notification delays by 80%.
 - Pioneered the development of an internal payment reconciliation system, processing **millions** of daily **financial** entries. This improved data accuracy by 99.5% and reduced manual reconciliation efforts by 60%.
- Software Engineer - [Open Science Saudi Arabia](#), Saudi Arabia.

Oct 2022 - Dec 2023.

 - Engineered multilingual learning platforms and tools, improving accessibility to non-English speaking contributors by 200%.
 - Authored detailed technical **documentation** to provide clear instructions and guidance for developers and team members.
 - Built custom software for generating code documentation for projects, reducing documentation time by 70%.
- Software Engineer - [Blue Marvel Group](#), United Kingdom.

Mar 2021 - Oct 2022.

 - Directed a cross-functional team of 9 engineers in developing and deploying robust backend APIs across major projects.
 - Performed **code reviews**, ensuring code quality and adherence to SOLID principles and design patterns.
 - Mentored a team of 6 members in backend best practices and database query optimisation.
- Software Engineer (contract) - [Veridux](#), Ikeja, Lagos State.

Jun 2020 - Feb 2021.

 - Led the development of a utility bill payment system, enabling seamless transactions across multiple service providers.
 - Implemented **microservices architecture** using **Docker** and **Apache Kafka**, reducing latency by 80%.
 - Deployed systems on **GCP**, leveraging Compute Engine for virtual machine instances, slashing operational costs by 25%.
 - Wrote comprehensive **unit** and integration tests, and automated checks using **GitHub Actions**, ensuring 95% test coverage across all services.

PROJECTS / RESEARCH / OPEN SOURCE

Antadel | [Site](#)

- Architected and built an **agentic AI** infrastructure for trading. Leveraging an **LLM workflow orchestration** engine with support for **multi-step agent tasks** with tool calling and human in the loop. Processing real-time market data across distributed pipelines on **Apache Kafka** with dedicated strategy and workflow **workers**.
- Built event-driven data pipelines with Apache Kafka and timescale DB, processing real-time market data across distributed workers.
- Built a secure execution runtime leveraging V8 **isolates** and **sandboxed** evaluation for executing dynamic algorithmic strategies.

Aston University - *Birmingham, United Kingdom.*

- Richie Moluno, Dr. Jian Wan (2025, October). Multi-Objective Optimisation of Urban Traffic Signals Using Deep Multi-Agent Reinforcement Learning.

The Turing Way - *Alan Turing Institute UK* | [Github](#)

- Created programs to **automate** attribution of contributors from the Crowdin project. This automation reduced manual effort by 100% and raised attribution accuracy by 90%.

Open Innovation Lab | [Github](#) / [Live site](#)

- Collaborated with a diverse team of developers to design and implement backend API functionalities. This initiative enhanced content delivery speed by 40% and reduced API response times by 50%.
- Carried out frequent **code reviews**, resulting in a 30% decrease in post-release defects and an overall improvement in code quality metrics.

EDUCATION

Aston University, Birmingham, United Kingdom
Programme: Masters of Science, Robotics and Autonomous Systems.
Academic Standing: Distinction.

University of Benin, Edo state, Nigeria
Programme: Bachelor of Engineering, Mechanical Engineering.
Academic Standing: Second Class Upper (4.07/5.0).

TALKS

- Richie Moluno, Batool Almarzouq, Goodnews Sandy (2025, March). Right-to-Left, Left-to-Right: Rethinking Multilingual Design, FOSS Backstage 2025. <https://25.foss-backstage.de/session/right-to-left-left-to-right-rethinking-multilingual-design/>.
- Richie Moluno. (2024, August 13). JSquarto: Bridging JavaScript Documentation with Quarto's Power, POSIT 2024 Conference.
- Goodnews Sandy & Richie Moluno. (2023, April 19). Documentation, Localisation and Open Infrastructure for Research Equity. Zenodo. <https://doi.org/10.5281/zenodo.7844839>, FORCE 11 Conference.

AWARDS

Invest in Open Innovation ([IOI](#)) Grant Recipient: The Open Innovation Platform (2024)

- **Awarded** for contributions to the development of a MOOCs learning platform supporting right-to-left script languages. This project enhances the accessibility of open science educational materials and addresses the need for open science education in Arabic-speaking countries.

Google Africa Developer Scholarship

- Awarded by Google for outstanding performance and potential in software development. This scholarship provided extensive training in web and mobile development, equipping recipients with the skills necessary to excel in the tech industry.

VOLUNTEERING ACTIVITIES

[The Turing Way](#) | Github February 2023 - Present.

- Orchestrated collaborative efforts with 30+ contributors to optimize localisation and translation initiatives for The Turing Way, an open-source guide; achieved a 20% increase in global user engagement through enhanced multilingual accessibility.
- Collaborated remotely with teams to enhance localisation and translations for the guide, resulting in 35% better accessibility.

Google Developer Group

- *Volunteer:* Dedicated time and efforts to support the Google Developer Group, actively contributing to the organisation and execution of events and activities.