

# Sachin Mamoru

TECHNICAL LEAD | SOFTWARE ENGINEERING | AI | CLOUD

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## PROFESSIONAL SUMMARY

Associate Technical Lead with 6+ years of software engineering experience in enterprise backend, distributed and AI-enabled systems. Builds production solutions using Python, FastAPI, Django, Java, PostgreSQL and AWS, with React, Angular and TypeScript skills. Owns architecture, coding, testing, deployment and production support. Develops RAG and agent workflows, secure integrations and asynchronous services; mentors engineers and validates AI-generated code. AWS Certified Solutions Architect - Associate; MSc in Advanced Software Engineering.

## TECHNICAL SKILLS

**Backend engineering:** Python, FastAPI, Django, Django REST Framework, Java, Spring Boot, Go, Node.js, REST APIs, microservices, Celery, asynchronous processing and distributed systems

**AI engineering:** Generative AI, RAG, LangChain, LangGraph, OpenAI, Claude, Gemini, AI agents, tool calling, structured outputs, embeddings, vector search, evaluation and guardrails

**Databases and data:** PostgreSQL, MySQL, Oracle, SQL, Redis, pgvector, data modelling, indexing, query optimisation, caching, Apache Airflow and data processing

**Cloud and DevOps:** AWS, EKS, EC2, RDS, S3, IAM, Lambda, Docker, Kubernetes, Helm, Terraform, GitHub Actions, Jenkins and CI/CD; Dynatrace, Sentry and Logfire

**Full stack and quality:** React, Angular, TypeScript, JavaScript, Git, Pytest, JUnit, Playwright, Cypress, JMeter, TDD, code reviews, performance engineering and Agile delivery

**AI-assisted development and security:** Claude Code, Cursor, GitHub Copilot, prompting, debugging and output validation; OAuth 2.0, OIDC, SAML, mTLS, webhooks and multi-tenancy

## PROFESSIONAL EXPERIENCE

### Associate Technical Lead - Backend and AI Engineering

Gapstars (Client: Envision Pharma Group) | Colombo, Sri Lanka | Jan 2026 - Present

- Lead design and hands-on development of production backend and AI services using Python, FastAPI, PostgreSQL, Redis and Celery on AWS EKS and Kubernetes.
- Build AI manuscript-drafting workflows with RAG, grounded generation, tool calling, structured outputs and evaluation, supporting document processing and export.
- Design REST APIs, relational data models and background jobs; implement caching, retries, idempotency, task-state management and failure recovery.
- Own features from requirements through coding, testing, deployment and production verification; manage Helm-based worker deployments and monitor using Dynatrace, Sentry and Logfire.
- Lead architecture discussions and PR reviews, mentor engineers and collaborate with React/Redux frontend, product and operations teams to resolve technical blockers.

### Senior Software Engineer

WSO2 | Colombo, Sri Lanka | Feb 2024 - Dec 2025

- Led development of enterprise backend and multi-tenant systems using Java, Spring Boot, Python, Django, Django REST Framework, REST APIs and SQL.
- Designed secure webhook management and event-driven integrations, including mTLS communication and asynchronous HTTP/WebSubHub publishing.
- Profiled identity-service and database bottlenecks using JMeter and JProfiler; improved queries, indexing, sessions and backend performance across AWS environments.
- Built Angular and TypeScript interfaces with reusable components, forms and REST API integrations.
- Collaborated with Architecture and Cloud/SRE teams on design and production issues; reviewed code, mentored engineers and supported reliable delivery.

## PROFESSIONAL EXPERIENCE CONTINUED

### Software Engineer

WSO2 | Colombo, Sri Lanka | Mar 2022 - Feb 2024

- Built backend services and multi-tenant APIs using Java, Spring Boot, Python, Django, Django REST Framework and SQL.
- Developed Organisation Management, B2B customer identity and access management (CIAM) and integrations using OAuth 2.0, OIDC, SAML and adaptive authentication.
- Contributed to testing, debugging and production issue resolution for distributed systems on AWS.

### Software Engineering Intern

CodeGen International (Pvt) Ltd | Colombo, Sri Lanka | Jul 2020 - Jan 2021

- Built user-behaviour tracking and data processing for an enterprise chatbot; developed monitoring and SLA analysis for a Jira-integrated project-management platform.

## CONSULTING AND TEACHING

### Independent AI and Backend Consultant

Upwork | 2026 - Present

- Top Rated freelancer with 100% Job Success and 500+ hours delivered across AI agent engineering, backend systems and enterprise integrations.

Profile: [upwork.com/freelancers/sachinmamoru](https://www.upwork.com/freelancers/sachinmamoru)

### Visiting Lecturer

University of Moratuwa | Colombo, Sri Lanka | Aug 2023 - Present

- Teach Business Intelligence and Analytics to final-year undergraduates; design assessments and evaluate research projects and practical data analytics work.

## CERTIFICATIONS

AWS Certified Solutions Architect - Associate | Amazon Web Services | Feb 2026 - Feb 2029 | [Verify](#)

Claude Certified Architect - Foundations | Anthropic | Jun 2026 - Jun 2027 | [Verify](#)

WSO2 Certified Identity Server Developer - V6 | WSO2 | [Verify](#)

## EDUCATION

**MBA | University of West London, UK | 2024 - 2025 | Merit**

**MSc Advanced Software Engineering | University of Westminster, UK | 2023 - 2024 | Distinction**

**B.Sc. (Hons) Information Technology | University of Moratuwa | 2017 - 2021 | First Class Honours | GPA: 3.71/4.00**

## AWARDS AND SPEAKING

- 2025 Kim Cameron Award recipient; selected speaker, React Summit US 2026; presenter at Internet Identity Workshop, October 2025.

## SELECTED PUBLICATIONS

A Blockchain-Based Patient-Centric Access Control Framework for Electronic Health Record Management with Revocation Mechanism. IEEE SCSE, 2026. [Read](#)

A Participatory Chatbot for Strengthening Urban Flood and Landslide Resilience: Integrating Community Awareness and Planning Decision Support. MDPI Sciforum, 2026. [Read](#)

IDeploySmart: A Machine Learning-Based Approach for Predicting the Deployment Type of Identity Servers. IEEE, published 2025; ICITR 2024. [Read](#)

Automated commentary generation based on FPS gameplay analysis. IEEE ICITR, 2022. [Read](#)

Conceptual Representation and Evaluation of an FPS Game Commentary Generator. IEEE, 2022. [Read](#)