

Nipuna Upeksha

Senior Software Engineer | Backend, Cloud, and Distributed Systems

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Summary

Senior Software Engineer with 8+ years of professional and freelance experience designing, building, and operating enterprise applications, APIs, and cloud-native services. Strong background in Java, Spring Boot, C# and .NET, distributed systems, system integration, and production delivery across AWS, Azure, Docker, Kubernetes, and CI/CD. Experienced technical leader skilled in incident resolution and translating complex business requirements into secure, reliable software.

Technologies

- **Languages and Frameworks:** Java, C#, Kotlin, Python, TypeScript, Spring Boot, ASP.NET Core, OSGi, FastAPI, Node.js
- **Architecture, Integration, and IAM:** Microservices, REST, GraphQL, gRPC, OAuth 2.0, OIDC, SAML, JWT, SCIM, WSO2 Identity Server, Keycloak, Entra ID
- **Cloud and DevOps:** AWS, Azure, GCP, Docker, Kubernetes, Terraform, Jenkins, GitHub Actions, Azure DevOps, Ansible
- **Data and Messaging:** PostgreSQL, MySQL, Oracle, MongoDB, Cassandra, Redis, Kafka, RabbitMQ
- **Observability and Quality:** OpenTelemetry, Grafana, Prometheus, Elasticsearch, Loki, Jaeger, JUnit, Mockito, SonarQube

Work Experience

EADX Ltd.

Senior Software Engineer, Jun 2026 – Present

Software Engineer, Jan 2024 – Jun 2026

Wolfsburg, Germany

Jan 2024 – Present

- Lead the design and delivery of enterprise software integrations and backend services using Java, Spring Boot, C#, .NET, APIs, and cloud platforms.
- Developed custom Java authentication extensions for WSO2 Identity Server, cutting latency by 50%.
- Architect secure API and federation workflows using OAuth 2.0, OIDC, SAML, WS-Federation, and MFA across WSO2 Identity Server, Keycloak, Salesforce, and Microsoft Entra ID.
- Drive solution design, conduct code and architecture reviews, advise customers, lead technical interviews, and mentor junior engineers to improve engineering quality and accelerate onboarding.

TRUMPF – Contract

Software Engineer

Ditzingen, Germany

Jun 2024 – Present

- Design and integrate enterprise REST APIs using Java, Spring Boot, C#, .NET, and Azure services, improving the scalability and reliability of cross-system workflows.
- Extend identity capabilities across Salesforce, WSO2, SailPoint, and Microsoft Entra ID for more than 20,000 enterprise users.
- Improve the operational reliability of Java/OSGi microservices through production monitoring, diagnostics, and incident analysis using Grafana and Elasticsearch.
- Coordinate cross-team integration releases and production issue resolution across dependent services within Agile delivery workflows.

Software Engineer

WSO2 Inc.

Colombo, Sri Lanka

May 2021 – Jan 2024

- Designed, developed, and deployed secure Java, Spring, and OSGi services for large-scale enterprise environments in fintech, healthcare, and technology.
- Implemented the B2B Organization Management capability for WSO2 Identity Server, reducing the time required for enterprise user provisioning and administration by 50%.
- Led product migrations across AWS, Azure, and GCP, resolving distributed-system compatibility defects, deployment failures, and security vulnerabilities.
- Delivered production engineering support under strict SLAs, diagnosing critical failures and restoring business-critical identity services with minimal disruption.

Visiting Lecturer

Informatics Institute of Technology

Colombo, Sri Lanka

Sep 2022 – Feb 2023

- Taught authentication, REST API design, session management, and secure database practices; assessed final-year projects against engineering and security standards.

Trainee Electronics and Software Engineer

Sanota Pvt. Ltd.

Galle, Sri Lanka

Jun 2019 – Dec 2019

- Developed Java/Spring applications for automated guided vehicle tracking and apparel management workflows with secure authentication.
- Built a Raspberry Pi data logger integrated with Kafka and AWS for reliable real-time operational data collection.

Freelance Software Engineer

Freelancer.com

Galle, Sri Lanka

Jun 2016 – May 2021

- Delivered web and cross-platform applications using Java, Python, JavaScript/TypeScript, Angular, and React, owning work from requirements analysis through implementation and delivery.

Selected Projects

Custom Identity and Access Management Solutions (External & Internal)

- Built a production-grade customer identity service using C#, ASP.NET Core, CQRS, and SCIM 2.0, integrating WSO2, Salesforce, OCI, and Azure Key Vault.
- Improved security, performance, and observability through scoped authorization, secure token validation and caching, structured logging, OpenTelemetry, Loki, Elasticsearch, Grafana, and Jaeger.

B2B Organization Management – WSO2 Identity Server



- Developed an open-source Java/OSGi organization-management extension with organization-aware access control for enterprise identity deployments.
- Reduced user provisioning and administration time by 50% through a hierarchical organization-management model.

DeveloperIQ Cloud Delivery System



- Built a Java/Spring application integrating with the GitHub API and backed by separate AWS RDS environments for development, UAT, and production.
- Implemented a Jenkins- and Ansible-based delivery pipeline using Docker and Kubernetes, deploying the application to AWS EKS.

Customer Data Migration Platform

- Developed a fault-tolerant C# and .NET migration service that processed more than 100,000 customer records with automated rollback of failed chunks.
- Added deployment automation and observability using Azure DevOps, Ansible, Grafana, and Elasticsearch.

Workday–Unycom Integration Service

- Developed a C# and .NET API hosted on Azure Functions to automate data exchange between Workday and Unycom and replace manual integration workflows.
- Improved operational support with Azure DevOps CI/CD, structured monitoring, Grafana, and Elasticsearch, reducing the effort required to diagnose integration failures.

Certifications

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| • Certified Kubernetes Application Developer (CKAD) | Feb 2026 |
| • Salesforce Certified Platform Identity and Access Management Architect | Sep 2025 |
| • HashiCorp Certified: Terraform Associate (003) | May 2025 |
| • WSO2 Identity Server Expert V6 and Developer V5/V6 | Sep 2024 |
| • AWS Certified Developer – Associate | Aug 2024 |
| • AWS Certified Solutions Architect – Associate | Jun 2023 |

Education

M.Sc. Big Data Analytics, Distinction

Robert Gordon University, United Kingdom

May 2023 – May 2025

B.Sc. (Hons.) Electronics and Biomedical Engineering

University of Moratuwa, Sri Lanka

Oct 2016 – Sep 2021