

# Gnaneswaran Umasuthan

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## Introduction

Senior Software Engineer with 4+ years of experience focused on backend systems and APIs. Proficient in Java, Spring Boot, and MySQL, with a track record of shipping clean, maintainable services and optimizing database performance. Eager to take on new challenges and contribute to reliable, scalable platforms.

**Languages:** English - Fluent, Tamil - Native

## Skills

- **Languages & Frameworks:** Java (8-21), Spring Boot, Spring Security, Hibernate/JPA, MyBatis, Spring WebFlux
- **Databases & Caching:** MySQL, Elasticsearch, MongoDB, Redis
- **Cloud Platforms:** Alibaba Cloud (Aliyun)
- **Messaging & Event-Driven Systems:** RabbitMQ
- **DevOps & Tools:** Docker, Docker Compose, Nginx, Linux, Git, Maven, Gradle, Jenkins, GitHub Actions, Prometheus, Grafana

## Experience:

**Senior Software Engineer | iCan Lanka, Colombo | Jan 2025 – Present**

- Led and mentored a team of 3 junior developers, improving team velocity and code quality through pair programming and technical reviews.
- Owned the development and operational health of 4 core applications (E-commerce, Food Delivery, Digital Menu, Rider Service) handling daily transactions.
- Architected and implemented a new caching layer using Redis, reducing API response times for product listings by 35%.
- Spearheaded key integrations for new business verticals: connected iCan Fly to Sabre GDS for flight bookings and developed a blockchain-based staking feature for the C2C platform to enable crypto interest earnings.
- Optimized complex SQL queries and introduced database indexing strategies, decreasing report generation time by over 50%.
- Established a monitoring dashboard with Prometheus and Grafana, reducing Mean Time to Resolution (MTTR) for production incidents by 30%.
- Deployed and managed backend service on Alibaba Cloud using Docker and Container Registry.

### **Software Engineer | iCan Lanka, Colombo | Feb 2023 – Dec 2024**

- Developed and shipped major features for the iCan Mall platform, including a voucher campaign system that increased user engagement by 20%.
- Built automated data processing pipelines for generating business reports (CSV, XLSX) and bulk product imports, saving over 10+ person-hours per week.
- Contributed to the backend of a chat application (iCanX), focusing on stability and bug fixes, reducing critical issues by 75%.
- Designed and developed the "Business" micro-application (Find Nearby Businesses) from concept to deployment, integrating it into two main platforms.
- Implemented Elasticsearch for the product catalog in iCan Mall, improving search relevance and reducing query response times from 2 seconds to under 200ms for complex search filters.

### **Software Engineer | Invicta Innovations (for Travis Perkins UK) | Nov 2021 – Jan 2023**

- Developed and maintained features for a large-scale, legacy POS and ERP system, focusing on supply chain and inventory management modules.
- Engineered a new customer information management screen, centralizing critical contact data and reducing data entry errors.
- Automated key inventory reporting by creating a program that generated daily stock variance summaries, cutting down manual reporting time by.
- Built a bulk data import utility to process CSV files and update inventory levels, reducing the time for stock updates from hours to minutes.
- Gained foundational experience in full lifecycle engineering, including estimation, release management, and deployment.

### **Education:**

**Degree:** Master of Science in Advanced Software Engineering [May 2023 – Present]

**University:** University of Westminster, London

**Degree:** Bachelor of Computer Science [January 2017 – October 2022]

**University:** Trincomalee Campus, Eastern University, Sri Lanka

### **Researches:**

**Research:** Optimizing code smell detection using machine learning algorithms

**Description:** Developed a machine learning-based system to improve accuracy in detecting code smells by leveraging ensemble algorithms such as XGBoost and Random Forest. Integrated the CK tool for code metric extraction and applied SHAP for model explainability. Achieved optimized performance through hyperparameter tuning and feature engineering.

**Research:** Comparative Analysis of Traditional Load Balancing Algorithms in Software-Defined Networks

**Description:** Conducted a comparative study of three load balancing algorithms Least-Busy-Path, Simple Round Robin, and Weighted Round Robin within Software-Defined Networks (SDN).

Implemented Multipath Dijkstra for efficient path discovery and evaluated performance based on bandwidth under varying traffic loads. Findings revealed Weighted Round Robin consistently outperformed others in both high and low traffic conditions.