

# Nuwan Jaliyagoda

## Senior Software Engineer | MSc. in Advanced Software Engineering

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### Personal Statement

Senior Software Engineer with over 3+ years of industry experience and 7+ years of domain expertise, specializing in building scalable backend systems, cloud-native applications, and data-driven platforms. With a First-Class BSc in Computer Engineering and MSc in Advanced Software Engineering, I have delivered impactful solutions across finance, media, and supply chain domains, while also contributing to research in IoT, robotics, and artificial intelligence.

My career reflects a balance of technical depth and leadership, ranging from architecting software pipelines and managing large-scale deployments to mentoring junior engineers and collaborating with cross-cultural teams in Singapore and Australia. Recognized through international publications and innovation awards, I bring a strong commitment to continuous learning, team growth, and delivering meaningful impact in both industry and academia.

### Education

<b>MSc. in Advanced Software Engineering</b> University of Westminster - Distinction Pass	United Kingdom 2023 - 2025
<b>BSc. (Hons) Computer Engineering</b> University of Peradeniya, 1st Class with Honors   GPA: 3.8/4.0	Sri Lanka 2017 - 2021
<b>G.C.E. Advanced Level (Physical Science)</b> Dharmaraja College, Physics (A), Combined Maths (B), Chemistry (A) Z-Score: 2.0031   Country Rank: 779	Sri Lanka 2013 - 2015

### Work Experience

<b>Senior Software Engineer   Rhino Partners</b>	Aug 2023 - Present
<b>Singlife (Singapore):</b> Integration of the Singapore Financial Index (SGFinDex) under Project Betterview, enabling seamless financial data aggregation, improving client onboarding, and financial portfolio management efficiency. Also worked as a technical support engineer for incident management in financial transactions [TypeScript, AWS Lambda]	
<b>Singapore Press Holdings (Singapore):</b> Worked as a full-stack developer, designed and implemented an event management and booking system for SPH media network. [NextJS, NestJS, AWS]	
<b>EbbEdge (Australia):</b> Built a data pipeline and behavior prediction platform for NYSE stock analytics, which provides short and long-term market insights and predictions. [Python, NextJS, Azure Functions]	
<b>CaterCare (Australia):</b> Working as a Backend and DevOps Engineer, developing a supply chain management system using Django and NextJS, improving user experience, and introducing automation pipelines for large-scale operations. [Python, JavaScript/TypeScript, Django]	
<b>Software Engineer   Rhino Partners</b>	Aug 2022 - July 2023
<b>Canvas Card - Pocket Money App (Singapore):</b> Worked on banking system integrations with VISA card processing and transactions, ensuring secure financial workflows and compliance with international standards. [PHP, Laravel]	

## Temporary Instructor (Teaching Assistant) | University of Peradeniya

Sept 2021 – Aug 2022

*Courses Taught:* Software Project Management, Programming Methodology, Computer Systems Engineering, Advanced Embedded Systems

## Trainee Software Engineer | LiveRoom (Pvt) Ltd, Sri Lanka

Apr 2021 – Aug 2021

CDG (Ceylon Divine Green): Developed an IoT-based Greenhouse Monitoring System, both Hardware and Software components [NodeJS, Express, AWS IoT, MQTT, ESPNow, ESP32, C++]

## Freelancer, Telco Application Developer | Dialog Ideamart & Mobitel mSpace

2015–2024

Worked as a Freelancing Developer on Dialog and Mobitel Telco platforms for 9+ years, completing 340+ projects based on Telco API integration for 60+ clients. [PHP, Java, Python, REST]

## Research & Publications

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**Internet of Things (IoT) for Smart Agriculture: Assembling and Assessment of a low-cost IoT system for Polytunnels**, Journal: *PLOS One*, 2023 (20+ Citations)

doi: [10.1371/journal.pone.0278440](https://doi.org/10.1371/journal.pone.0278440)

**Mixed-Reality based Multi-Agent Robotics Framework for Artificial Swarm Intelligence Experiments**

Journal: *IEEE Access*, 2023 (7+ Citations)

doi: [10.1109/ACCESS.2023.3317434](https://doi.org/10.1109/ACCESS.2023.3317434)

**Simultaneous Localization and Mapping with Cost-Effective Sensors**, *International Research Conference on Smart Computing and Systems Engineering (SCSE)*, April 2025

doi: [10.1109/SCSE65633.2025.11030968](https://doi.org/10.1109/SCSE65633.2025.11030968)

## Technical Skills

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**Languages** (with experience): Python (4Y+), JavaScript (4Y+), TypeScript (3Y+), PHP (6Y+), C/C++ (4Y+), Java (2Y+), SQL (4Y+), HTML5 (6Y+), Swift (1Y)

**Technologies:** Django, Laravel, ReactJS, NextJS, NestJS, NodeJS, Express, Jekyll, CSS3, Bootstrap5, Tailwind, Material UI, REST, jQuery, MySQL, SQLite, PostgreSQL, DynamoDB, SQLAlchemy, Firebase, Docker, ThreeJS, Playwright, CUDA, and Parallel Programming

**Tools:** Git, GitHub/GitLab, Sentry, Jupyter, Pandas, NumPy, Figma, AWS, Azure, GCP, Jira, Ruff, MyPy, UV

**DevOps & Practices:** Agile Project Management, Scrum, Software Project Management, Microservices

## Selected Awards & Honors

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- **Emerging Innovator of the Year** – Google I/O Extended SL (2018)
- **Winner** – IEEE R10 HTC Products Competition, Asia Pacific Region (2018)
- **IEEE Xtreme 13.0** – Country Rank 21st / Global Rank 436th (2019)
- **1st Place** – Sri Lankan Robotics Challenge (2015)
- **1st Place** – School Category & Overall Best App, Dialog App Challenge (2015)
- **4th Place** – Represented the Sri Lankan Team in the International Schools' Software Competition, Rajalakshmi Engineering College, Chennai, India (2014)

## Community Engagement & Presence

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- Published 3+ peer-reviewed papers (20+ citations), and working as a volunteer external research fellow/mentor with the Department of Computer Engineering, University of Peradeniya.
- Active GitHub contributor: [github.com/NuwanJ](https://github.com/NuwanJ)
- Technical blogger: <https://nuwanjaliyagoda.com/blog>

## Key Interests

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- Generative AI & Reinforcement Learning
- Full-Stack Web Development
- Augmented and Virtual Reality
- Machine Learning & Data Science
- Computer Systems and Industrial Automation

## References

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### **Prof. Roshan G. Ragel (PhD: UNSW)**

*Professor, Department of Computer Engineering,  
University of Peradeniya, Sri Lanka*

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### **Mr. Shafraz Rahim**

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