

JAYAN VIDANAPATHIRANA

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Holding a Finnish work-seeking residence permit valid from August 2025 to July 2026.

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Summary

- Software Engineer with over 7 years of industry experience and a strong foundation in Computer Science, recently completed a Master's degree specialising in Software Engineering.
- Recognised for proactive leadership, problem-solving skills, and the ability to excel both independently and in collaborative environments.
- Known for approaching challenges with creativity, persistence, and energy, driven by a deep curiosity and passion for continuous learning.

Skills

Programming Languages: Java, Python, JavaScript, SQL, PHP, C++, HTML/CSS

Frameworks/Libraries: Spring, Spring boot, JUnit, Angular, React

Developer Tools: Git(GitHub, GitLab), Maven, Docker, Kubernetes, Apache Kafka, AWS, Postman, Castle mock

Technologies/Concepts: Microservice Architecture, RESTful API, GraphQL, CI/CD, Machine Learning, Software Process Management, Algorithms, System Design, Distributed Systems, Agile Software Development, Scrum

Languages: Professional working proficiency in English and native proficiency in Sinhala.

Education

University of Helsinki

Master's Degree in Computer Science

Aug. 2023 – July 2025

Helsinki, Finland

University of Moratuwa

B.Sc. Eng. (Hons) Department of Computer Science & Engineering. (First Class Honours)

Mar. 2014 – Dec. 2017

Moratuwa, Sri Lanka

Experience

University of Helsinki

Research Assistant

Aug. 2024 – Dec. 2024

Helsinki, Finland

- Joined the Empirical Software Engineering research group to support cutting-edge research on Large Language Models (LLMs) in software engineering.
- Designed and developed a software artifact that generates Engineering Process Diagrams using LLMs.
- Presented the feasibility of using LLMs for automated Engineering Process diagram generation as part of academic research, later developing the work into my Master's thesis.

CodeGen International

Technical Team Lead

Feb. 2022 – May 2025

Colombo, Sri Lanka

- Led the 3rd-party H2H API Integration sub-team (around 6 team members) for *CodeGen's* flagship *Flight Centre* Project, the company's largest global engagement at the time.
- Orchestrated integration strategies, coordinated regional rollouts, and ensured timely delivery of third-party system integrations to global users.
- Mentored junior team members (5+) over the last two years, fostering skill development and team growth.
- Contributed part-time as a contracted software engineer from September 2023 to May 2025, supporting critical project components alongside academic commitments of Masters Degree.

CodeGen International

Software Engineer

Jan. 2018 – Jan. 2022

Colombo, Sri Lanka

- Joined the company's largest engagement in 2019 as part of a 120-member *TravelBox™* development team, enhancing a travel management platform for a global client, one of the world's largest theme park chains.
- Designed, developed, and delivered new features and change-request solutions to improve their business needs using Java, Spring, Oracle, SOAP and REST APIs, while also maintaining Swing-based desktop applications.
- Collaborated with the Rapid Response team to monitor and resolve functional and non-functional issues in post-major production releases.
- Worked client's onsite office in Paris for two months post-rollout, troubleshooting critical issues and triaging defects, which improved system stability, streamlined rollout timelines, and reinforced client trust.

- Conducted performance evaluations of machine learning algorithms in both batch & streaming data processing scenarios.
- Analysed trade-offs and scalability of different ML approaches under real-time constraints.
- Contributed architectural insights to enhance WSO2's event processor platform for integrating Streaming ML tools.

Projects

Engineering Process Diagram Generation with Large Language Models | *Python, LLMs* **Aug. 2024 – Feb. 2025**

- As part of my Master's thesis within the Empirical Software Engineering research group, I joined an existing project to investigate automated engineering diagram generation.
- I developed a Python-based application that integrates a retrieval-augmented generation (RAG) system with a third-party diagram-generation tool (DWSIM) and LLMs to produce Piping and Instrumentation Diagram (P&IDs) from textual specifications.
- The prototype demonstrated the feasibility of LLM-driven diagram automation, streamlining documentation workflows and laying the groundwork for further research into RAG-enhanced engineering tools.

CodeGen Project 2 (FCTG) | *Java, Angular, React, CI/CD, Git, Lucene cache*

June 2020 – May 2025

- Led a Scrum team within a large-scale project team to tailor and enhance the TravelBox™ product for Flight Centre Group, aligning with evolving client requirements to improve business operations.
- Designed and delivered new RESTful APIs for both web frontends and external consumers, enabling the integration of a third-party tour system (TourRadar) into the TravelBox™ reservation platform. Responsibilities included system design, planning, and development from initial concept to production delivery. Developed solutions across multiple domains of the product, including financial modules, system performance, user experience, and third-party integrations, ensuring scalability and maintainability.
- Consistently met deadlines and delivered high-quality outputs, which contributed to strong client satisfaction and smooth project progression.

CodeGen Project 1 (DSN) | *Java, Spring, SQL, GitLab, Jenkins, JIRA, RabbitMQ, Redis*

Mar 2018 – May 2020

- Contributed as a Software Engineer to enhance and adapt the TravelBox™ platform for one of the world's largest theme park chains, supporting their ticketing and reservation operations across multiple channels (TravelBox™ interface, OTA and REST APIs)
- Developed and tested Java-based backend services and Swing-based UIs to meet specific client requirements. Created and optimised scheduler jobs and complex SQL queries, worked on distributed caching with Redis, and RabbitMQ for cache refreshing and asynchronous communication. Investigated and resolved production issues efficiently, delivering timely fixes and workarounds to minimise system impact, including direct onsite support.
- Successfully supported three major production releases and played a key role in stabilising the system post-deployment.

Real-Time Human Movement Analytics Using Multiple Non-Invasive Video Feeds

May. 2017 – Dec. 2017

- Designed and implemented a real-time ground-plane human movement analytics system as part of a Bachelor's final-year group project.
- Create real-time analytics of human movement on the ground plane; address screen-space limits and poor multi-camera scalability. Built a C++/Python multi-camera pipeline with OpenCV and Integrated OpenPose/Caffe for pose estimation. Developed a Java/Spring backend for data aggregation & visualisation.
- Delivered a scalable prototype supporting simultaneous feeds in real time, with markedly improved spatial accuracy.

Siddhi extension to WSO2 CEP for process | *Java, Maven, SAMOA ML Library*

Jul. 2016 – Dec. 2016

- Extend WSO2 CEP with real-time machine learning capabilities via a Siddhi extension.
- Integrated Apache SAMOA as a streaming ML library, Developed three Siddhi extensions to perform regression, classification, and distributed clustering on event streams.
- Enabled native, low-latency predictive analytics within the CEP, simplifying deployment of streaming ML models.