

# NADUN DE SILVA

## Senior Software Engineer

 Auckland, New Zealand  
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## Summary

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Software Engineer with 6+ years of experience in cloud-native application development and data analytics in Kubernetes and other Cloud Infrastructure. Background in architecture, user experience (UX), development, and deployment of cloud-native applications in production environments. Experience in owning the technical direction of a product area and leading a team of engineers.

## Experience

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### Senior Software Engineer

**Orion Health**

 November 2022 to Present

 Auckland, New Zealand

- Led the AWS deployment of Indexity, including threat modeling, privacy assessments, observability, and disaster recovery.
  - Designed and implemented the CI/CD pipelines and processes for deploying released product artifacts on AWS.
  - Improved patient search accuracy of Phone number-based search using Apache Lucene-based indexes.
  - Developed the Terraform code for deploying self-hosted GitLab runners on Google Cloud, reducing the development costs by more than 50%.
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### Associate Technical Lead

**WSO2**

 June 2021 to November 2022

 Colombo, Sri Lanka

- Achieved the Sustained Outstanding Contribution Award for the third consecutive year — currently awarded only for the top 5% of the employees in the company.
  - Led another engineer in developing the minimum viable features for Choreo online editor's resource scheduling, within 1.5 months, using Kubernetes and GoLang.
  - Eliminated bottlenecks reducing the startup time of the Kubernetes resources of the Choreo Editors by 80% and increasing the overall user experience.
  - Reduced the MsSQL DB utilization by 60%, by introducing a Redis cache and randomization of cache expiry times, increasing the number of users the system can handle.
  - Completed 95% of the targets and sprint milestones on time, by prioritization of tasks and fostering a good working environment.
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### Senior Software Engineer

**WSO2**

 July 2019 to June 2021

 Colombo, Sri Lanka

- Spearheaded the implementation of the foundation for Choreo observability within 3 months, with a team of 2 other engineers, creating the backbone of Choreo observability.
- Decreased the cost by 90% for the company, by architecting the Choreo observability storages with data archival into a Data Lake for Machine Learning (ML) use cases.
- Improved debugging experience for users, by revamping the observability instrumentation at Ballerina compiler level, within 1 month, to map the observability data to the source code.
- Minimized the number of bugs Choreo Observability area by implementing proper code reviewing, testing and deployment practices in a team of 6 engineers.

## Software Engineer

**WSO2**

📅 January 2018 to July 2019

📍 Colombo, Sri Lanka

- Delivered the Cellery observability basic features within 2 months for observing microservice composites, using Kubernetes, Istio, OpenTracing and Envoy.
- Headed the implementation of Cellery developer tools using Language Server Extensions and visualizations of Cells using D3.
- Developed Cellery Hub backed by a Docker Registry as storage and authentication of the CLI and portal using OpenID Connect (OIDC), collaborating with a team, within 1 month.
- Implemented the observability aspects of the WSO2 Serverless Platform using Prometheus and Jaeger on top of Kubernetes and OpenWhisk.

## Skills

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- **Programming languages** — Java, GoLang, Scala, Python, JavaScript, TypeScript
- **Frameworks and tools** — Express, React, TensorFlow, Numpy, Pandas, Azure Event Hub (Kafka), Testing (TestNG, Cypress), Kubernetes Operator Framework
- **Storages** — Time-series Databases (Influx DB, Azure Data Explorer), Graph Databases (Orient DB), Data Lakes (Azure Data Lake), Relational Databases (MySQL, MsSQL), Redis
- **Deployment** — Containerization (Kubernetes, Azure Kubernetes Service, Kustomize, Docker, AWS ECS), CI/CD (GitOps, Azure DevOps, GitHub Actions, GitLab), Monitoring (Prometheus, Jaeger, CloudWatch)
- **API Protocols** — REST, GraphQL, gRPC
- **Software Development Methodologies** — Agile, DevOps

## Certifications

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- Fundamentals of Reinforcement Learning  
**Amii, University of Alberta** 📅 September 2021
- Build Basic Generative Adversarial Networks (GANs)  
**DeepLearning.AI** 📅 June 2021
- Deep Learning Specialization  
**DeepLearning.AI** 📅 June 2021
- Certified Kubernetes Administrator  
**The Linux Foundation** 📅 December 2020
- Certified Kubernetes Application Developer  
**The Linux Foundation** 📅 January 2020

## Education

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### B.Sc. (Hons.) in Engineering (Computer Science and Engineering)

**University of Moratuwa**

📅 January 2014 to December 2017

📍 Colombo, Sri Lanka

- Attained a GPA of 3.85 out of 4.20, obtaining a First Class.
- Placements in Dean's List in 6 out of 8 semesters at the University of Moratuwa.
- Awarded Global Finalist (Galactic Impact) in the NASA Space Apps Challenge 2017.
- Completed Google Summer of Code 2017.

## Publications

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- "Generative Adversarial Networks (GAN) based Anomaly Detection in Industrial Software Systems" published in 2019 at Moratuwa Engineering Research Conference (MERCon)
- "Anomaly Detection in Industrial Software Systems — Using Variational Autoencoders" published in 2017 at the Proceedings of the 7th International Conference on Pattern Recognition Applications and Methods (ICPRAM)