# NADUN DE SILVA

## Software Engineer

- Colombo, Sri Lanka
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## Summary

Software Engineer with 4.5+ years of experience in cloud native application development and data analytics, performing above the top 5% of the employees at WSO2. Background in architecture, user experience (UX), development and deployment of cloud native applications in production environments. Experience in owning the observability area of Choreo and leading a team of engineers.

## Experience

### Associate Technical Lead

**WSO2**　　　📅 June 2021 to Present　　　📍 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.

### 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

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

## Certifications

- ### 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

### 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

- "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)

## Languages

**English** ●●●●○
**Sinhala** ●●●●●