

NADUN DE SILVA

Senior Software Engineer

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EXPERIENCE

Senior Software Engineer

WSO2

July 2019 – Present

Sri Lanka

- Lead the Observability Team of a Ballerina based EIPaaS & oversee Ballerina Observability
- Revived the abandoned Ballerina Observability aspects and improved the instrumentation
- Designed Ballerina based EIPaaS & Ballerina Observability Architectures

Software Engineer

WSO2

Jan 2018 – July 2019

Sri Lanka

- Designed & Developed several Components in Middle-ware & Cloud Projects

EDUCATION

B.Sc. (Hons.) in Engineering (Computer Science & Engineering)

University of Moratuwa

2014 – 2017

Sri Lanka

GPA – 3.85 / 4.20 (First Class)

Certification in Computer Networking and Linux Server Administration

Arthur C. Clarke Institute for Modern Technologies

2013

Sri Lanka

G.C.E. Advanced Level Examination

St. Joseph's College, Colombo 10

2012

Sri Lanka

Z Score – 2.2441

Attained A grades in all Subjects – (Combined Mathematics, Physics, Chemistry, General IT, General English, General Knowledge)

First Certificate in English (Council of Europe level B2)

Cambridge ESOL

2009

Grade – B

PUBLICATIONS

Journal Articles

- Kumarage, T., De Silva, N., Kuruppu, C., Ranawaka, M., & Ranathunga, S. (2018). Anomaly detection in industrial software systems using variational autoencoders.

Conference Proceedings

- Kumarage, T., Ranathunga, S., Kuruppu, C., De Silva, N., & Ranawaka, M. (2019). Generative adversarial networks (gan) based anomaly detection in industrial software systems. In *2019 moratuwa engineering research conference (mercon)* (pp. 43–48). IEEE.

ACHIEVEMENTS

WSO2 Sustained Outstanding Contribution Award



Exceptional performance in years 2019 & 2020

Placements in Dean's List

6 out of 8 semesters at University of Moratuwa

Global Finalist – Galactic Impact – NASA Space Apps Challenge 2017



Became a Global Finalist for designing a system which was able to identify potential barriers or facilitators to gene migration.

Google Summer of Code 2017

Honorable Mention – WSO2 Internal Hackathon 2017

Finalist – Angel Hack 2016

Finalist – LANHack 2016

Finalist – HackaDev 2015

Finalist – British Council HSBC Youth Enterprise Awards 2015

RESEARCH & DEVELOPMENT PROJECTS

Fault Detection in Complex Systems Research

University of Moratuwa

- Researched on identifying anomalies in Complex Industrial Systems where labeling data is impractical as a precursor to self healing systems.
 - Explored unsupervised machine learning and deep learning techniques for detecting anomalies
 - Developed a Bidirectional GAN based technique for detecting anomalies
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Ballerina based Intelligent EIPaaS

WSO2

 Dec 2019 – Present

- Researched on optimum ways on collecting, storing & analyzing large volumes of Time-series data
 - Lead two engineers in implementing Observability in the initial PoC of a Ballerina based EIPaaS
 - Lead the Ballerina based EIPaaS Observability Team and Oversaw Observability area
 - Designed and oversaw multiple secure, scalable micro-services which formed the control plane
 - Contributed to designing many aspects of the Control Plane & SRE aspects of the Platform
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Ballerina Observability

WSO2

 Dec 2019 – Present

- Researched on the latest techniques on metrics & traces collection
 - Revived the abandoned Ballerina Observability instrumentation
 - Improved Ballerina Compiler Observability Instrumentation at Java byte-code level & Intermediate Representation
 - Researched and improved the performance of Instrumentation to reduce the performance impact in enabling Observability
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Cellery – Cell-based Architecture Implementation

WSO2

 Aug 2018 – Dec 2019

- Researched and implemented the Observability for Micro-service composites in the PoC of Cellery
 - Designed, Implemented & Oversaw Observability aspects of Cellery
 - Lead implementation of tooling for Cellery
 - Designed Cellery Hub; a registry for storing Cells based on Docker Registry
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Customer Success Enablement

WSO2

A data-driven approach for decision making to help customer support teams by analyzing customer engagements & their satisfaction.

Stream Processing Extensions for Siddhi

WSO2

Designing and implementing several Siddhi Stream Processing Extensions to calculate the top and bottom values for a given field.

TECHNICAL SKILLS

- **Languages** — Java, Python, JavaScript
- **Frameworks & Tools** — Spring Boot, JMeter, Git
- **Knowledge Domains** — Fault Detection, Time-series Analysis, Observability, Cloud Computing, Middle-ware
- **Databases** — Time-series Databases (Influx DB, ADX, Azure TSI), Relational Databases (MySQL)

CERTIFICATIONS

Certified Kubernetes Administrator

The Linux Foundation

 Dec 2020

Score — 86 / 100

Certified Kubernetes Application Developer

The Linux Foundation

 Jan 2020

Score — 94 / 100

EXTRA CURRICULAR ACTIVITIES

- Chess at Anatoly Karpov Chess Club in Colombo, Sri Lanka — Year 2003 – 2007
- Placed first in the Anatoly Karpov Inter Class Chess Tournament 2007
- Editor of the Science Union of St. Joseph's College — Year 2011 – 2012
- Sports — Athletics, Swimming, Karate
- Video Designing — Year 2015 – 2016
- Dancing — Events at Department of Computer Science & Engineering — University of Moratuwa

STRENGTHS

- Hard Working
- Attention to Detail
- Strong Team Player & Motivator

SOFT SKILLS

- Leadership Skills
- Presentation Skills
- Communication Skills
- Time Management

LANGUAGES

Sinhala
English



REFEREES

Available Upon Request