





Niruhan Viswarupan

Software Engineer,
Open Source Dev

 <https://www.niruhan.com>

 niruhanv@gmail.com

A passionate and dedicated individual having years of development experience with excellent software engineering, problem-solving, and analytical thinking skills who believes in pursuing goals with hard work, commitment, and persistence. (Visit my LinkedIn or Personal Page for more information)


Networks


 [linkedin.com/in/niruhan](https://www.linkedin.com/in/niruhan)


 github.com/niruhan


 niruhan.medium.com

Languages

 English ●●●●●

 French ●●●●●

 Tamil ●●●●●

 Sinhala ●●●●●

Technical Skills

Programming Java, Python, JavaScript, HTML, CSS, Matlab, SiddhiQL, Verilog

Dev Stack Git, REST web services, SOAP, gRPC, GraphQL, Docker, Jenkins, Maven, TestNG, Socket.io, OAuth 2.0, Unit and integration testing, OS (Linux, Mac), MQTT, AWS

Databases MySQL, MongoDB, MS SQL Server

Frameworks Carbon, NodeJS, React, Tensorflow, PyTorch, Keras

CI/CD AWS CodePipeline, AWS Elastic Beanstalk, GitHub Actions - Node.js CI

Work Experience

Senior Software Engineer (Fullstack) - Sysco LABS, Colombo, Sri Lanka Apr 2021 - Now
Sysco LABS is a full subsidiary of Sysco Corporation, USA. Part of team responsible for authentication & authorization of Sysco shop, a B2B ecommerce platform handling \$250mil/week transactions.

Developed circuit breaker for Salesforce calls. Worked on various login issues and frontend changes. Fixed SQL injection vulnerabilities. Integrated Datadog monitoring. Maintained reporting services in AWS ECS with Cloudformation. Led migration from Tivoli IDP to Okta

Software Engineer - WSO2 Inc. Colombo, Sri Lanka Feb 2019 - Feb 2021
Revamped WSO2 Salesforce Connectors. Implemented retry based access token refreshing for API calls. Upgraded test framework for connectors. Defined best practices. (Salesforce REST, SOAP, Bulk APIs, OAuth 2.0, Test Automation) WSO2 Salesforce Connector code - [REST](#) | [SOAP](#) | [Bulk](#)

Trained partners from India, Australia, and Sri Lanka on WSO2 connector development.

Improved database access latency of Siddhi Complex Event Processor by 44% by implementing in-memory DB caching (Java, SQL) [My blog on the feature](#)

Added gRPC protocol support for Siddhi by developing a gRPC i/o within 2 months as gRPC support was deemed essential in cloud-native deployments (Java, gRPC, Protobuf) [siddhi-io-gRPC](#)

Tested and fixed bugs for product release. Developed shell script for automated Docker image release in Jenkins server. (Shell script, Docker, Jenkins)

Developed several patches for customers production issues(eg: targeted advertising system by a European telecom operator hot deployment of HTTP request-response configs in production server) within agreed ETA (JIRA)

Offsite Developer - Service - The Mentor Network. Boston, MA, USA Dec 2019 - Feb 2020
While employed at WSO2 I was allocated for offsite developer service for The Mentor Network for a period of 2 months.

I developed a connector for Ceridian Dayforce HCM for the US health service provider (Apache Synapse, Bitbucket, REST API, API testing, proxy documentation) Public Repo: [esb-connector-dayforce](#)

Software Engineer - Trainee - WSO2 Inc. Colombo, Sri Lanka Jun 2017 - Dec 2017
Streaming Machine Learning Toolkit for Siddhi: Implemented K-Means Clustering, and ClusTree algorithms (Java, Python, ML) [siddhi-execution-streamingml](#)

TensorFlow integration to Siddhi: Enabled the use of Tensorflow (TF) models in WSO2 product by developing a bridge between TF Java and WSO2 SP enabling users to go from research to production seamlessly (Java, Tensorflow, ML) [siddhi-execution-tensorflow](#)

Became a contributor to MOA: Massive Online Learning open-source ML project by the University of Waikato, New Zealand [moa](#)

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Skills

Object Oriented Software Development

Web App Development

Data Structures and Algorithms

Test driven development

Multi-threaded concurrent-

programming

Documentation, Blogging

RESTful Web Services, gRPC Services

Enterprise Integration

Stream Processing & Data Analytics

Implementing and Training DNNs

Data cleaning

micro-controller, FPGA Programming

PCB Design & Manufacturing

Basic Robotics

Processor and ISA Design-

& Implementation

Write programs in assembly code

Memberships & Certifications



Associate Member - Engineering Council, Sri Lanka (Since 10/2020)



Associate Member - Institute Of Engineers Sri Lanka (Since 10/2020)



Member - IEEE (Since 08/2018)



WSO2 Certified Micro Integrator Developer (Since 10/2020)



WSO2 Certified Streaming Integrator Developer (03/2020)

Education

2019 – 2020 **MSc in Information Technology** Cardiff Metropolitan University, UK
Modules included data analysis, information security, software development, etc.

Technology Dissertation

Development of a social network-like platform for language learners to meet, teach, and learn languages. (React JS, Node JS, Mongo DB, Styledcomponents, GraphQL, AWS) langexchange.lk

2014 – 2018 **BSc in Engineering (Hons)** University of Moratuwa, LK
Few Modules: Data Structures and Algorithms, Modular Software Development, Applied Statistics, Neural Networks and Fuzzy Logic, Pattern Recognition and Machine Intelligence

Ranked 7th in the batch of 1000 in field selection exam

Dean's List in 1st, 2nd, 3rd, 4th, 6th, 7th, and 8th semesters

Graduated with First Class Honours. GPA: 3.96

2011 – 2013 **G.C.E Advanced Level** Colombo Hindu College, LK
Achieved 3A's in Physical Science stream

National Rank: 36 out of over 100,000 Students. 99.5th percentile. Z-Score: 2.5936

Placed first in high school in my batch of 300+ students

Mathematics, Chemistry, Physics, GIT

Projects

LangExchange.lk - 2020
Language Exchange Platform for Sri Lankans. Development of a social network-like platform for language learners to meet, teach, and learn languages. (React JS, Node JS, Mongo DB, Styledcomponents, GraphQL, AWS) langexchange.lk

School Management - Backend - 2019
A system for comprehensive school management including admission, teaching, learning, attendance-taking, instant messaging etc. The front-end of this system can be found at tsd_frontend. (Node JS, Express, Mongo DB, Socket.io, REST API) school-management-backend

Computer Vision Based Digital Classroom - 2018
Developed person re-identification system, and facial recognition for tracking students in classroom. (Python, Tensorflow, PyTorch, Keras, DNN, ML)

Face detector (MTCNN), person detector (Faster RCNN), face recognition (Sphereface), person ReID (SPReID). Ran the 4 neural networks in 2 machines (NVidia GTX 1060, Tesla K40) parallelly which communicated using python sockets.

Research: Semantic parsing and saliency scoring for person re-identification. Achieved improvement on state of the art for occluded re-id datasets

16 Bit Processor - 2017
A processor capable of removing noise and down-sampling an image was designed in Verilog and implemented in FPGA. Tested with an image containing Gaussian noise. (Verilog, FPGA, Assembly Code) 16-bit-processor

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Achievements

- 2015 - 2018 **Dean's List - University of Moratuwa**
I was placed in Dean's List in 1st, 2nd, 3rd, 4th, 6th, 7th, and 8th semesters during my undergraduate degree at University of Moratuwa. One should maintain GPA above 3.8 for the semester to be selected. [Performance Criterion for BSc UoM](#)
- 2015 - 2018 **Recipient of Mahapola Merit Scholarship**
Awarded by govt. of SL for top 10% performers in G.C.E A/L
- May 2014 **Asian Physics Olympiad - SL Team Member**
Represented Sri Lanka at Asian Physics Olympiad held at National University of Singapore, Singapore from 12th to 18th May, 2014 [APhO 2014 Sri Lankan Team](#)
- Nov 2013 **Full score in SAT Subjects**
Full score for SAT subjects exams held on 2nd November, 2013 (Reg. No: 0037205788) Physics: 800, Mathematics Level 2: 800, and Chemistry: 800
- Jun 2013 **National First in Sri Lankan Physics Olympiad**
Achieved a score of 100 in the national physics Olympiad examination held on 15th June, 2013 organized by Department of Physics, University of Colombo [IPSL Olympiad Result](#)

Volunteer Experience

- 2021 **Secretary** Sysco LABS Sri Lanka Toastmasters' Club
- 2020 **Treasurer** Toastmasters' Club of WS02
Manage funds of the club for membership fee of Toastmasters, budgeting for club events, negotiating sponsorship with the company management.
- 2018 **Batch Representative** University of Moratuwa
Served as the batch representative of 118 final year Electronic and Telecommunications Engineering Department students. Responsibilities included: help organizing department events, facilitate communication between staff and students.
- 2014 **Academic Committee Member** LivePhysics
The organization was under Dr. S.R.D. Rosa, professor at University of Colombo. Conducted pilot examination for mathematics and biology stream students of AL batch 2014. Involvement in projects ranging from conducting seminars to restoring school buildings.