



Sarith Imaduwege

Computer Science Undergraduate

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Profile

I, **Sarith Ravinaka Hewa Imaduwege**, a self-motivated and hardworking Computer Science Undergraduate. As a tech enthusiast, I am capable of learning new technologies and concepts and am eager to do so. I am broadly interested in **Machine Learning**, but specifically, focus on **Deep Learning** and **Machine Learning on Graphs**. I am capable of the development and deployment of state-of-the-art deep learning models. I am also an FOSS development enthusiast who has experience in production grade software development and deployment.

Education

BSc (Hons.) in Computer Science General Sir John Kotelawala Defence University CGPA - 3.5	2019 - Present
G.C.E Advance Level Royal College, Colombo 07 Physical Science Stream	Aug 2018
G.C.E Ordinary Level Royal College, Colombo 07	Dec 2015

Work Experience

Software Engineer - Intern WSO2 inc., Colombo	Aug 2022 - Feb 2023
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I had the opportunity to integrate WSO2's Choreo cloud platform with the Moesif Analytics Dashboard. There I was responsible of developing integration points and deploying them in production.

Projects and Research

Benchmark Dataset for Propagation Based Fake News Detection Related to Final Year Individual Project	Jan 2022 - Apr 2022
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- Preparing a complete benchmarking dataset using Twython and Python multiprocessing.
- This dataset is suitable for comprehensive analysis and comparison of existing Fake News Detection models.

Personal details

Date of birth
June 2, 1999

Nationality
Sri Lanka

Website
github.com/SarithRavi

LinkedIn
linkedin.com/in/sarith-imaduwege

Technical Skills

Java	<div></div>
C/C++	<div></div>
Python 3.x	<div></div>
Pytorch	<div></div>
Tensorflow 2.x	<div></div>
Data Engineering Tools (numpy/pandas etc.)	<div></div>
Django 2.0 & Django Rest	<div></div>
Docker	<div></div>
Kubernetes	<div></div>

Graph Neural Based Facial Landmarks Detection

Dec 2022 - Present

Related to person open source project.

- Here I benchmark performance of different Graph Neural Network architectures on the task of facial landmark detection.
- This is an opensource contribution to a literature survey conducted at Monash University (Malaysia).

Propagation Based Fake News Detection using GNN

Mar 2022 - Jun 2022

Related to Final Year Individual Project

- Here I thoroughly analyze performance of different variants of GNNs under the task of propagation based fake news detection. Here I also examine the relationship between features and GNN's expressivity.

Integrating WSO2 Choreo with Moesif

Aug 2022 - Feb 2023

Intern project

- I was responsible of developing integration points and deploying them in production.
- Made critical changes in the WSO2 Choreo / API manager products so the products can be migrated into more data intensive environments and be more cloud native.

Smart Glass using Arduino platform

Jun 2019

First year Group Hardware Project

Personal Contribution -

- Developed an end-to-end functioning simple **Operating System** on top of the FreeRTOS kernel.
- Circuit Design

Traffic Accident Hotspot Indication and Severity Detection System

Jun 2020

Second year Group Software Development Project

Personal Contribution -

- Developed a Machine Learning model (**SVM model**) for accident severity prediction.
- Deployed the model in **Google Cloud**
- Implemented backend using **Flask** Microframework

Soft Skills

Fast adaptability

Effective communication

Multitasking

Eager to learn new things

Fast learner

Problem solving ability

Publications

Capturing Credibility of Users for an Efficient Propagation Network based Fake News Detection

Mar 2022

2022 2nd International Conference on Computer, Control and Robotics (ICCCR 2022)

Acceptance rate : 40%

<https://ieeexplore.ieee.org/document/9790186>

**The Mismatch between Graph Neural
Networks' Expressivity and Propagation
Graphs in Fake News Detection**

Jun 2022

The 7th IEEE/ACIS International Conference on Big Data, Cloud
Computing, and Data Science Engineering (BCD 2022)

Acceptance rate : 32%

<https://ieeexplore.ieee.org/document/9900611>

Extracurricular activities

Chairperson

Mar 2021 – Mar 2022

IEEE Student Branch

- Initiated IEEE Power and Energy Society (PES) in the university
- Gained the first global-level victory for the University Student Branch

Committee Member

Apr 2021 – Jan 2022

IEEE SL SECTION STUDENT | YP | WIE CONGRESS 2021

- Member of the Logistic team

Courses and Certifications

Custom Models, Layers, and Loss

2021

Functions with TensorFlow

Coursera – DeepLearning.AI

Custom and Distributed Training with

2021

TensorFlow

Coursera – DeepLearning.AI

Advanced Computer Vision with

2021

TensorFlow

Coursera – DeepLearning.AI

Applied Social Network Analysis in

2022

Python

Coursera – University of Michigan

Docker & Kubernetes: The Practical

2022

Guide by Academind

Udemy

Miscellaneous and Self-taught Courses

CS224W: Machine Learning with Graphs

2021

Stanford Online

18.06SC Linear Algebra

2021

MIT Open Learning Library

CS229: Machine Learning Course |

2022

Summer 2019

Stanford Online

**Statistical Machine Learning course by
Tübingen**

Tübingen Machine Learning

2022

**Probabilistic Machine Learning by
Tübingen**

Tübingen Machine Learning

Present