

Suren Sritharan

Email: suren.sri@eng.pdn.ac.lk

Site: suren3141.github.io

EDUCATION

B.Sc. Engineering (Specializing in Computer Engineering) University of Peradeniya GPA of 4.0/4.0	2016 - 2020
G.C.E Advanced level (Physical Science) Trinity College Kandy Results - 3A, Z-score - 2.514 (99th country rank)	2012 - 2014

EXPERIENCE

Research Assistant at Sri Lanka Technological Campus, Colombo, Sri Lanka Research on image enhancement under varying illumination conditions.	2020
Volunteer Instructor at the University of Peradeniya, Peradeniya, Sri Lanka Instructor for various undergraduate courses in computer science/engineering.	2020
Autonomous wireless network research intern at Nokia Bell Labs, Antwerp, Belgium Research on the limitations of machine learning models for wireless 5G networks and beyond.	2019

PUBLICATIONS

PEER-REVIEWED JOURNAL

[1] S. Sritharan, H. Weligampola, and H. Gacanin, "A Study on Deep Learning for Latency Constraint Applications in Beyond 5G Wireless Systems" in *IEEE Access*, 2020 (Early access).

<https://ieeexplore.ieee.org/document/9268052>

[2] G.Jayatilaka, J.Hassan, U.Marikkar, R.Perera, **S.Sritharan**, H.Weligampola, M.Ekanayake, R.Godaliyadda, P.Ekanayake, V.Herath, D.Godaliyadda, A.Rathnayake, S.Dharmaratne, J.Ekanayake. "Use of Artificial Intelligence on spatio-temporal data to generate insights during COVID-19 pandemic: A Review", *PLOS ONE*, 2020. (Under review).

preprint: <https://doi.org/10.1101/2020.11.22.20232959>

INTERNATIONAL CONFERENCE

[3] G.C. Jayatilaka*, H.S. Weligampola*, **S. Sritharan***, P. Pathmanathan, R. Ragel, and I. Nawinne. "Non-contact Infant Sleep Apnea Detection" 14th IEEE International Conference on Industrial and Information Systems (ICIIS), 2019.

<https://ieeexplore.ieee.org/document/9063269>

[4] H.S. Weligampola, G.C. Jayatilaka, **S. Sritharan**, R. Godaliyadda, P. Ekanayaka, R. Ragel, and V. Herath, "A Retinex Based GAN Pipeline to Utilize Paired and Unpaired Datasets for Enhancing Low Light Images", Moratuwa Engineering Research Conference (MERCon), 2020.

<https://ieeexplore.ieee.org/document/9185373>

[5] G.Jayatilaka*, **S.Sritharan***, H.Weligampola*, D.Elkaduwe, R.Godaliyadda, P.Ekanayake, V.Herath, N.Harishchandra, "Generalizing Foreground Estimation Algorithms in Dynamic Background Conditions", Sri Lanka Technological Campus International Research Conference (SLTC irc), 2020. (Conference abstract).

AWARDS AND RECOGNITION

INTERNATIONAL LEVEL

- Huawei - Seeds for the Future** 2019
Represented Sri Lanka at the Huawei Seeds for the Future program for a two-week workshop held in Beijing and Shenzhen, China.
- IEEE Xtreme 13.0 - 2nd Country Rank, 64th World Rank** 2019
- IEEE Xtreme 12.0 - 2nd Country Rank, 79th World Rank** 2018
- IEEE Xtreme 11.0 - 1st Country Rank, 113th World Rank** 2017
24-hour Worldwide competitive programming competition organized by IEEE
- Google Code Jam - Qualified to R1 (with top country ranks at qualifications)** 2017, 2018, 2019
Worldwide competitive programming competition organized by Google.
- CIMA OCS exams - 1st Country rank, 5th World rank** 2015
Case study exam is an exam conducted by CIMA in which the examinee must show his financial and management skill in a virtual business environment.

NATIONAL LEVEL

- Migara Ratnatunga Trust Award for Industrial Training** 2020
Awarded by Institution of Engineers, Sri Lanka for exceptional performance during internship.
- StatHack 2.0 - 1st place** 2019
Nationwide Inter-university statistical data analytics competition organized by University of Colombo.
- ACES Coders v7.0 - 1st place** 2018
12-hour nationwide Inter-university programming competition with over 300 groups.
- Humanitarian Product Competition: IEEE R10 - 1st place** 2018
Product development competition organized by IEEE for Asia Pacific region (IEEE region 10).
- Brainstorm - 2nd place** 2018
Biomedical competition organized by IEEE EMBS section, University of Moratuwa
- Dialog NBIOT Hackathon - 2nd place** 2018
1st NBIOT based hackathon in Sri Lanka with 10 chosen teams organized by Dialog Axiata.
- ACES Hackathon 2017 - Best Software** 2017
An Inter-Faculty Hackathon organized by Faculty of Engineering, University of Peradeniya.
- Mahapola Higher Education Merit Scholarship** 2016
Merit based scholarship awarded by government of Sri Lanka for performance at GCE A/L examination.

UNIVERSITY LEVEL

- C. A. Hewavitharana Prize for Best Performance in Engineering** 2020
Best academic performance in Engineering (Top of my class of 400+ students with a perfect GPA).
- IFS Gold Medal for Excellence in Computer Engineering** 2020
Best performance in Computer Engineering specialization program.
- E. F. Bartholomeusz Prize for Engineering Mathematics** 2020
Best performance in Engineering Mathematics courses.
- Prof. T.D.M.A. Samuel Prize for Enthusiasm and Excellence in Engineering Mathematics** 2020
Best performance in Engineering Mathematics elective courses.
- Prof. E. F. Bartholomeusz Endowment awards for Projects** 2020
Awarded for the best the Final Year Project.

PROJECTS

Crowd risk assessment through CCTV to combat COVID-19 spread in Sri Lanka Assessing risk levels based on social distancing, contact detection, and mask identification.	2020
Low light image enhancement and interpretation Enhancing the illumination of low light images for robustness.	2019
Deep learning for resource allocation in wireless networks Study of the limitation of supervised, unsupervised and reinforcement learning for wireless applications.	2019
Novel finite element based structural analysis Optimizing novel structural analysis algorithm to improve efficiency and memory consumption.	2018
Infant sleep apnea detection Vision-based model for detection of sleep apnea in infants.	2018
Foreground estimation in dynamic background Pipeline for detection of foreground in dynamic background containing aquatic scenes.	2017
CPU design on FPGA using VHDL Implementation of CPU and Memory for specific ISA using Verilog.	2017
Identifying earth resources using hyperspectral imagery Software that predicts the existence of a given mineral by analyzing HSI images.	2017
Inventory management system Decision support system for inventory management based deterministic models.	2017
Brain signal classification Classifier to identify type of brain signals based on colour perceptions using OpenBCI board.	2016
Speaker recognition Program that identifies people based on voice through classical signal processing techniques.	2016

TECHNICAL SKILLS

Tensorflow • PyTorch • Python • Java • C • C++ • R • MATLAB • JavaScript • HTML • CSS • Arduino • Verilog HDL • Assembly programming • MySQL • Android development