

Suren Sritharan

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EDUCATION

M.Sc. Informatics (Computer Science) Technical University of Munich	Oct 2021 - present
B.Sc. Engineering (Specializing in Computer Engineering) University of Peradeniya - GPA of 4.0/4.0 (Top of my class of 400+ students)	Jan 2016 - July 2020
G.C.E Advanced level (Physical Science) Trinity College Kandy - 3A with a Z-score of 2.514 (99th country rank)	Apr 2012 - Aug 2014

EXPERIENCE

Student Research Assistant (Hiwi) at Providentia++ project, TUM, Germany Application-oriented research on computer vision to create a digital twin of traffic.	Dec 2021 - present
Research Assistant at Sri Lanka Technological Campus, Sri Lanka Research on image enhancement under varying illumination conditions.	Aug 2020 - Sep 2021
Volunteer Instructor at University of Peradeniya, Sri Lanka Instructor for various undergraduate courses in computer science/engineering.	Jan 2020 - Jun 2020
Autonomous wireless network research intern , Nokia Bell Labs, Belgium Research on the limitations of machine learning models for wireless 5G networks and beyond.	Feb 2019 - Aug 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*, vol. 8, pp. 218037-218061, 2020.

<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", (Under review).

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

INTERNATIONAL CONFERENCE

[3] H.S. Weligampola, G.C. Jayatilaka, **S. Sritharan**, P. Ekanayaka, R. Ragel, and V. Herath, R. Godaliyadda, "An Optical physics inspired CNN approach for intrinsic image decomposition", IEEE International Conference on Image Processing (ICIP), 2021.

<https://tesla.ce.pdn.ac.lk/students/gihan/publications/iid-2021.pdf>

[4] 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>

[5] 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>

AWARDS AND RECOGNITION

INTERNATIONAL LEVEL

Huawei - Seeds for the Future	2019
Represented Sri Lanka at the Huawei Seeds for the Future program held in 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
An exam conducted by CIMA in which the examinee must show their financial and management skills 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

TEACHING EXPERIENCE

Volunteer Instructor (UOP) Logic Networks (CO221), 2020. Computer architecture (CO224), 2020.
Teaching assistant (SLTC) Programming fundamentals (ECS100), 2020. Internet Technologies (CCS112), 2020. Communication Protocols and Models (CCS201/EEE428), 2021. Programming Fundamentals with Python (ICCO2301), 2021.

TECHNICAL SKILLS

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