GAYAL KURUPPU

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EDUCATION

University of Moratuwa, Sri Lanka   2016 - 2021
BSc in Engineering; GPA: 3.76; First Class Honors; IELTS: 7.5   Dean's List: Semester 1,2,6,7,8

Linear Algebra (A+)	Signals and Systems (A-)	Data Structures and Algorithms (A)
Differential Equations (A)	Neural Network & Fuzzy Logic (A+)	Machine Vision (A+)
Industrial Training (A+)	Final Year Project (Computer Vision) (A+)	

Ananda College, Colombo, Sri Lanka   Grad: Aug 2015
GCE Advanced Level (Mathematics, Physics, Chemistry, General English)   4As / 29th in country / z-score of 2.74
(country-wide university entrance examination taken by over 300,000 students annually)

EXPERIENCE

MBZUAI, Abu Dhabi, UAE - *Research Assistant(Computer Vision)*   Nov 2022 - Present
- Working on the usage of Vision Transformers to improve Domain Generalization under Assistant Professor Dr. Muhammad Haris Khan

WSO2 LLC , Sri Lanka - *Software(Compiler) Engineer*   May 2020 - Nov 2022
- Developed backend Java APIs for the Compiler of the novel cloud native programming language - Ballerina
- Introduced and implemented refactor extract code actions
- Implemented performance testing framework for Ballerina Language Server
- Volunteered in the Ballerina Security team

University of Moratuwa, Sri Lanka - *Undergraduate Researcher*   Apr 2020 - Mar 2021
- Published a research paper and implemented an end-to-end pipeline for Computer Vision and Virtual Reality implementation for online fashion recommendation (Arxiv '22)
- Reconstruct the 3D human body model using an image and let customer wear the clothes which are recommended by our algorithm in a VR clothing store (UVITON)

WSO2 LLC, Sri Lanka - *Research Intern*   Jun 2019 - Dec 2019
- Developed an **analytical framework** to model the performance of micro-services using Python
- Evaluated the accuracy of the framework by comparing analytical and experimental performance results
- Co-Authored the research paper: An Analysis of Throughput and Latency Behaviours under Microservice Decomposition (**International Conference for Web Engineering 2020**)
- Developed a framework to analyze the, availability limits of micro-services based systems using Python

Olivescript, Sri Lanka - *Research Development Intern*   Jun 2017 - Jun 2018
- Get the PPG signal from the foot, process it to health data and diagnosis of early symptoms of diseases
- Added the feature to Clardia to get the body fat percentage of a person from his foot
- Team member of the winning team of the 'Disrupt Asia 2017 - Startup Battle'

PUBLICATIONS

Gayal Kuruppu, Bumuthu Dilshan, Shehan Samarasinghe, Nipuna Madhushan, Ranga Rodrigo
Realistic, Animatable Human Reconstructions for Virtual Fit-On   Arxiv, 2022

Malith Jayasinghe, Jayathma Chathurangani, **Gayal Kuruppu**, Pasindu Tennage, Srinath Perera
An Analysis of Throughput and Latency Behaviours Under Microservice Decomposition. In proceedings of the International Conference for Web Engineering 2020   ICWE, 2020

ADDITIONAL RESEARCH PROJECTS

Intelligent Completions for Ballerina   Oct 2022 - Present
- Research on state-of-the-art approaches for providing Intelligent completions using deep learning

Active Learning   Jul 2022 - Sept 2022
- Research on state-of-the-art active learning approaches, their performance for CNNs (Core-set, Shapley)

- Technologies Used : Python, PyTorch, Google Colab

Home Automated Virtual Assistant   Oct 2020 - Nov 2020
- Developed a virtual assistant to automate home appliances, make schedules, perform calculations and derive weather based information
- Technologies Used : Microsoft Azure, LUIS, Azure Speech, Python, MySQL, API, html

SELECTED AWARDS

Scholarship Recipient - "The Cornell, Maryland, Max Planck Pre-doctoral Research School", Saarbrucken Germany 2020

Mahapola Merit Scholarship - Ranked 29th in Sri Lanka at GCE Advanced Level Examination   2015

Merit Medalist - International Mathematics Competition, Bali, Indonesia   2011

Represented Sri Lanka - International Mathematics Competition, Taiwan   2012

Silver Medalist - Sri Lanka Mathematics Olympiad Junior Competition   2011

Runners-Up - Australian National Chemistry Quiz   2014

Muhandiram Charles memorial scholarship - Best performer in Mathematics in GCE A/L Exam by an Anandian 2015

National & School Colors - Mountaineering, Sri Lanka   2015

SKILLS

Languages: Python(Proficient), Java(Proficient)   **Frameworks**: Tensorflow, PyTorch(Intermediate)

Tools: GitHub(Intermediate)

Experience & Interests: Computer Vision, Software Development, Performance Analysis

HACKATHON EXPERIENCE

National Rank 6, Global Rank 140 - IEEEXtreme 12.0   International, 2018

National Rank 5, Global Rank 164 - IEEEXtreme 11.0   International, 2017

Champions - Thinkwave 2.0 Ideathon organized by AIESEC CS, Sri Lanka   National, 2021

Runners-Up - IEEE Innovation Nation Sri Lanka organized by IEEE Sri Lanka   Sri Lanka, 2021

Runners-Up - "HackStat", Data Science Hackathon organized by University of Colombo   Sri Lanka, 2018

VOLUNTEER EXPERIENCE / LEADERSHIP

Rotaractor - Rotaract Club - Rotaract District 3220   2017-2019
Co-chaired the event **YouTM** of **Are You Ready 2017** the official career fair of the University.
Volunteered to teach mathematics in rural areas - Monaragala, Sri Lanka.

AIESECer - Colombo South Local Committee   2017-2019
Vice President(Finance) - Project Aqua 6.0.
Member of Project Ripple Effect 12.0.

Secretary - Mathematics Society - Ananda College   2014/2015
Held mathematics workshops for students to uphold the interest in mathematics aiming the local mathematics Olympiad exams.

Co-ordinator - Science Union - Ananda College   2014/2015
Led the high school Mathematics and Science Quiz team and won 4 out 5 major Science Quizes in the season 2014/2015

NON-RELATED REFERENCES

Dr. Ranga Rodrigo   Dr. Malith Jayasinghe
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University of Moratuwa   WSO2 Inc.
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