

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-Author of 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

SELECTED AWARDS

Scholarship Recipient - "The Cornell, Maryland, Max Planck Pre-doctoral Research School", Saarbrücken 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

ADDITIONAL RESEARCH PROJECTS

Intelligent Completions for Ballerina	Oct 2022 - Present
<ul style="list-style-type: none"> Research on state-of-the-art approaches for providing Intelligent completions using deep learning 	
Active Learning	Jul 2022 - Sept 2022
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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 	

SKILLS

Languages: Java (proficient), Python(Intermediate)	Frameworks: Tensorflow, PyTorch
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 - IEEEExtreme 12.0	International, 2018
National Rank 5, Global Rank 164 - IEEEExtreme 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

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