

Vikum Sri Wijesinghe

158/26, Welagedara Uyana Rd, Wellangolla, Kurunegala, Sri Lanka.

Nationality : Sri Lankan

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🌐 [Personal Webpage](#) [in LinkedIn](#) [Github](#) [Kaggle](#) [DataCamp](#)

SUMMARY

- Prospective PhD student with **3.99/4.2 GPA**(First Class Honours, Ranked 2nd), **4 published research papers** and completed **research internship** at Singapore University of Technology and Design.
- Excellent mathematical and research background with a GPA of **4.14** (out of 4.2) for mathematics and research subjects combined(Ranked 1st).
- **5 years of programming experience** as a C++/Python developer in **London Stock Exchange Group**.
- **Self taught** machine learning practitioner; **Kaggle Master**.
- **Certified scrum master** experienced in complete agile software development life cycle.
- **Gold medalist** (Ranked 2nd all island) at Sri Lankan Physics Olympiad Competition
- **VIP(Values in Practice) Award Winner** for Excellence and Partnership at London Stock Exchange Group 2020.
- Seeking an opportunity to push the frontiers of **machine learning and artificial intelligence**.

RESEARCH INTERESTS

- | | |
|--------------------|-----------------------------------|
| • Machine Learning | • Machine Learning Systems Design |
| • Explainable AI | • AutoML |
| • Healthcare | • Operations Research |

EDUCATION

University : **University of Moratuwa**, Sri Lanka. (4 years)
Honours Degree of Bachelor of the Science of Engineering
Class : **First Class**
Major : Electronic and Telecommunication Engineering
Overall GPA : **3.99 / 4.2**
GPA for Mathematics and Research Modules : **4.14 / 4.2**
Department Rank : **2**
University Rank : **2**
Electives : Research Module, Applied Statistics, Pattern Recognition & Machine Intelligence, Data Structures and Algorithms, Time Series and Stochastic Processes, Operational Research, Robotics, Electronic Control Systems, Fundamentals of Machine Vision & Image Processing, Modular Software Development, Linear Algebra, Intelligent Systems, Technical & Scientific Writing, Calculus, Differential Equations, Robot Design and Competition, Digital Signal Processing, Computer Networks.
Medium : English

High Schools : Maliyadeva College, Sri Lanka & Harishchandra College, Sri Lanka

MACHINE LEARNING RELATED SKILLS & CERTIFICATIONS

- **Programming Skills:** C++(Expert), Python(Expert), MatLab, SQL
- Kaggle Master ([see Kaggle profile here](#))
- Completed Google's Machine Learning (AI) Crash Course *by Google AI*
- Completed Machine Learning *by Stanford University* — Coursera
 - Git repository: https://github.com/vikumsw/ML_Stanford_Cousera
- Completed Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning *by deeplearning.ai* — Coursera
- AI For Everyone *by deeplearning.ai* — Coursera
- Currently reading Open Machine Learning Course *by mlcourse.ai* and The Hundred-Page Machine Learning Book by Andriy Burkov
- Completed course Kafka Essential Training
- Completed course Learning Data Science: Understanding the Basics
- Completed DataCamp Courses
 - [Supervised Learning with scikit-learn](#)
 - [Introduction to Python](#)
 - [Intermediate Python](#)
 - [Data Manipulation with pandas](#)
 - [Python Data Science Toolbox \(Part 1\)](#)
 - [Python Data Science Toolbox \(Part 2\)](#)

- [Introduction to Data Visualization with Matplotlib](#)
- [Merging DataFrames with pandas](#)
- [Introduction to Importing Data in Python](#)
- [Statistical Thinking in Python \(Part 1\)](#)
- [Intermediate Data Visualization with Seaborn](#)
- [Object-Oriented Programming in Python](#)
- Completed DataCamp Projects
 - [The Android App Market on Google Play](#)
 - [TV, Halftime Shows, and the Big Game](#)

PUBLICATIONS

- **Vikum S. Wijesinghe** and Upeka Kanchana Premaratne. Bandwidth Reduction and Convergence Analysis of Extremum Seeking Control with Feedback Encoding. *Frontiers in Mechanical Engineering*, 28 November 2016 <https://goo.gl/9Npr8Q>
- M.D. Sudara, **V.S. Wijesinghe**, D.M. Serasinghe, J.G.D.A. Thilakaratne and S. Thayarajan. Implementation and Analysis of Fast Locking 5GHz Phase Locked Loop. In proceedings of the 2016 IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE), Penang, 2016 <https://goo.gl/GhfvD1>
- Roshan lalintha Peiris, **Vikum Wijesinghe** and Suranga Nanayakkara. SHRUG: Stroke Haptic Rehabilitation Using Gaming. In proceedings of the 6th Augmented Human International Conference(Singapore, Singapore — March 09 - 11, 2015). AH'15.. ACM, New York, NY, USA.p.213-214 <https://goo.gl/Ana7cI>
- Roshan Lalintha Peiris, Suranga Nanayakkara, **Vikum Wijesinghe** and Kouta Minamizawa. KineticCanvas: Synergetic Effort between Art and Technology. In proceedings of the Annual Meeting of the Australian Special Interest Group for Computer Human Interaction (Parkville, VIC, Australia — December 07 - 10, 2015).OzCHI '15.ACM New York, NY, USA.P.575-578 <https://goo.gl/TRD1Wy>

ACCOMPLISHMENTS

- VIP(Values in Practice) Award Winner for Excellence and Partnership at London Stock Exchange Group 2020.
- Highest GPA for Mathematics and Research modules (**4.14/4.2**).
University of Moratuwa, 2011 - 2015
- Second Highest Overall GPA of the Dept. of Electronic & Telecom. Eng.
University of Moratuwa, 2011 - 2015
- Gold Medal : Ranked 2nd (all island) at Sri Lankan Physics Olympiad Competition-2010 scoring 96/100.
Institute of Physics, Sri Lanka
- Dean's List in 6 out of 7 academic semesters
University of Moratuwa, 2011 - 2015
- Mahapola Higher Education Merit Scholarship
Government of Sri Lanka, 2011 - 2015

- Most Outstanding Student of the Year *Maliyadeva College, 2010*
- Best Science Results *Maliyadeva College, 2009*
- Distinction at Australian chemistry quiz, senior division - 2009
Royal Australian Chemical Institute
- High Distinction at Australian chemistry quiz, junior division - 2007
Royal Australian Chemical Institute

PROFESSIONAL EXPERIENCE

Specialist Software Engineer *London Stock Exchange Group*

April 2019 - Present

- Working as a C++ application developer and designer to deliver low latency, highly reliable software solutions to stock exchanges and clearing houses around the world.
- Main routine tasks working in Millennium ReferenceData team,
 - Product road-map/strategic planning.
 - Coding and optimizing C++ code.
 - Code/Design reviews.
 - Dynamic/Static code analyzing.
 - Safe refactoring, test automation and coverage improvements.
 - Compliance to full SDLC standards.
 - Supervising Interns.

Senior Software Engineer *London Stock Exchange Group*

April 2018 - March 2019

Software Engineer *London Stock Exchange Group*

April 2016 - March 2018

RESEARCH EXPERIENCE

Research Intern

October 2014 - April 2015

Augmented Human Lab, Singapore University of Technology and Design, Singapore

- Research on enhancing rehabilitation process for stroke patients by augmenting the existing exerciser.
- Research on creating a toolkit for creating subtle and ambient animations on regular paper.

TEACHING EXPERIENCE

Substitute Teacher

Dec 2010 - Sept 2011

Vision Centre of Higher Education, Sri Lanka

- Conducted an advanced level combined mathematics paper discussion class.

Volunteer Teacher

Oct 2010 - Sept 2011

Maliyadeva College, Sri Lanka

- Taught Advance Level Combined Mathematics, Grade 9 Science and Grade 7 Science

Private Tutor

April 2012 - Aug 2013

- Taught Advance Level Combined Mathematics & Physics
- Contributed in producing island 4th and 14th in 2013 ICT stream.

SELECTED PROJECTS

Bandwidth Reduction and Convergence Analysis of Extremum Seeking Control with Feedback Encoding 2015/16

Research Project: Dept. of Electronic and Telecom. Eng., University of Moratuwa

ESC algorithms are used to track and maintain a plant/system at its most optimal operating point automatically without requiring the prior knowledge about the system and robust to smaller changes in the system. In this work we have analyzed the use of encoding schemes for Extremum seeking control systems which use periodic or stochastic perturbations.

Paper Published In : Frontiers in Mechanical Engineering

5Gbps SerDes IP Development for 100Gbps Applications 2015/16

Final Year Project: Dept. of Electronic and Telecom. Eng., University of Moratuwa

Successfully designed and simulated a Serializer-Deserializer module which is used to serialize parallel data which should be transmitted and to deserialize serial data into parallel lines at the receiver side

Paper Published In : ISCAIE 2016

SHRUG : Stroke Haptic Rehabilitation Using Gaming 2014/15

Augmented Human Lab, Singapore University of Technology and Design

Augmented an existing exerciser to enhance rehabilitation process of stroke patients by adding visual feedback, gaming aspects and recording capability. This enabled patients to perform exercises correctly even without the supervision of a therapist and performance evaluation.

Paper Published In : 6th Augmented Human International Conference 2015

Paper Pixels 2014/15

Augmented Human Lab, Singapore University of Technology and Design

Thermochronic ink changes its color based on the temperature. This idea was used to convert a paper based display in to an attractive animation by controlling the temperature on segments of the display.

OTHER PROJECTS

- High Speed Line follower Controller : Implemented a controller that takes a sensor array as an input and output commands to retain the middle position of the line.
- Electronic Stethoscope : Implemented an electronic stethoscope that can be used to examine, visualize, store, cardiac acoustic waveforms of any number of patients.
- Autonomous grid solving robot that finds the best path, can detect, carry and place objects.
- Remote Controlled Racing Car.
- Taxi Dispatching System : Developed a software to monitor and control a taxi dispatching system (Java).
- WiFi Strength Analysis : Mapped the Wifi signal strength of a floor in the department building and suggested router placing for better coverage.
- Automated shellac coating remover for copper wires.
- People counter using IR sharp sensors and Arduino controllers.

EXTRA-CURRICULAR ACTIVITIES

Leadership Roles

- Batch Representative of Batch 2011, Department of Electronics and Telecommunications Engineering, University of Moratuwa 2015
- Committee member at Electronic Club at University of Moratuwa 2013-2014
- Team Leader in AIESEC-Colombo South Local Committee, Sri Lanka 2013

Leadership Training Camp, Sri Lanka Police

- Completed three-week training programme on **Developing Leadership Qualities & Positive Thinking** held at Pahalagama police training camp, Sri Lanka 2011

Volunteering Experiences

- Augmented Human 2015 international conference, Student volunteer AH'15, Singapore
- Sri Lankan University Games, Event coordinator 2013
- E-Care 2015 : Helping the rural school Deniyaya kanishta Vidyalaya, Deniyaya. 2015
- Are You Ready 2014 & 2013, Event coordinator 2014 & 2013
- E-Night 2015, Organizing committee member 2015
- Sri Lankan Robotics Challenge, Event coordinator 2014
- E-Forum 2015, Event coordinator 2015
- Yathra 2013, Annual music extravaganza of University of Moratuwa, Volunteer 2013

Sports

- Completed LSR Colombo Marathon in half-marathon Category 2017
- Badminton : Champions in Tronic Shuttle Fest 2014 2014
- Cricket :
 - Team Member at LSEG cricket team LSEG Technology, Sri Lanka
 - Champions in inter house sports meet LSEG Technology, 2017
 - Runners up in Tronic Premier League 2013, 2014 & 2015
 - Cricket Team Member of Maliyadeva College Cricket Team & RSA cricket club Kurunegala(past)
- Football :
 - Champions Inter-Lob Football tournament LSEG Technology, 2018
 - Runners up in inter house sports meet LSEG Technology, 2017
- Rugby :
 - Runners up in inter house sports meet LSEG Technology, 2017
 - Champions in inter-class Rugby tournament Maliyadeva College, 2006
- Member of Ashihara International Karate Organization: Karate, Kick Boxing, MMA 2011

Other

- Inter school Drama competition “Thun Kal Dekma”, Finalists 2005 & 2006

Clubs and Organizations : The Institute of Engineers Sri Lanka (IESL), Old Boy's Association Maliyadeva College, Electronic Club of ENTCT, Rotaract Club of University of Moratuwa (Past), AIESEC Colombo South(Past)

REFEREES

Dr.Upeka Premaratne,

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