

Gihan Weeraprameshwara

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🌐 <https://gihanayesh.github.io>

🌐 <https://www.linkedin.com/in/gihanayesh>

Academic Qualifications

Ph.D. in Computer Science and Engineering

August 2024 - Present

Department of Computer Science and Engineering, Michigan State University
Starting Fall 2024

BSc. Engineering (Hons) in Computer Science and Engineering

August 2017 - July 2022

Department of Computer Science and Engineering, University of Moratuwa
First Class Honours
CGPA:3.93/4.20

G.C.E. Advanced Level Examination

January 2008 - August 2016

Dharmaraja College Kandy
All Distinction (A) passes for Combined Mathematics, Physics, Chemistry, and General English
Island Rank - 118
Z score -2.3516

Work Experience

Teaching Assistant (Object-oriented Software Development)

August 2024 - Present

Department of Computer Science and Engineering, Michigan State University

- Worked under Prof. Charles Owen and Prof. Anik Momtaz.
- Grading, student teams management and advising

Software Engineer

May 2022 - July 2024

WSO2 LLC

- Worked in areas related to API management, REST APIs, Web Tokens, and Application Authorization.
- Technologies used - Java, JavaScript, React, MySQL, and H2 database.

Teaching Assistant (Theory of Computing)

August 2021 - December 2021

Department of Computer Science and Engineering, University of Moratuwa

- Worked under Prof. Sanath Jayasena.
- Grading and creating quizzes

Teaching Assistant (Technical Writing)

July 2021 - September 2021

Department of Computer Science and Engineering, University of Moratuwa

- Worked under Ms. Waruni Karunarathne and Ms. Hiroshi De Silva.
- Grading

Trainee Software Engineer

October 2020 - March 2021

Arimac Lanka (Pvt) Ltd.

- Worked in R&D and Product Sectors.
- Projects contributed - AR Based Advertising App, Beverage Delivery App, and Credit Card Management System
- Technologies used - AR, VR, Content Management Systems, Django framework, and Spring

Publications

- G. Weeraprameshwara, V. Jayawickrama, N. de Silva, and Y. Wijeratne, *Sinhala sentence embedding: A two-tiered structure for low-resource languages*, in *Proceedings of the 36th Pacific Asia Conference on Language, Information and Computation*, Manila, Philippines: De La Salle University, Oct. 2022, pp. 325–336
- G. Weeraprameshwara, V. Jayawickrama, N. de Silva, and Y. Wijeratne, *Sentiment analysis with deep learning models: A comparative study on a decade of sinhala language facebook data*, in *2022 The 3rd International Conference on Artificial Intelligence in Electronics Engineering*, ser. AIEE 2022, Bangkok, Thailand: Association for Computing Machinery, 2022, pp. 16–22, ISBN: 9781450395489. DOI: 10.1145/3512826.3512829
- V. Jayawickrama, G. Weeraprameshwara, N. de Silva, and Y. Wijeratne, *Facebook for sentiment analysis: Baseline models to predict facebook reactions of sinhala posts*, *The International Journal on Advances in ICT for Emerging Regions*, vol. 15, no. 2, 2022
- V. Jayawickrama, G. Weeraprameshwara, N. de Silva, and Y. Wijeratne, *Seeking sinhala sentiment: Predicting facebook reactions of sinhala posts*, in *2021 21st International Conference on Advances in ICT for Emerging Regions (ICter)*, 2021, pp. 177–182. DOI: 10.1109/ICter53630.2021.9774796

Projects

Facebook Reaction Prediction for Sinhala Text

July 2021 - April 2022

A sentiment analysis model for Sinhala Colloquial Text using Facebook posts developed using ML, NLP, and Deep Learning techniques.

Final year project

Technologies used - PyTorch, TensorFlow, Google Colab, and AWS EC2

Flu Shot Learning: Predict H1N1 and Seasonal Flu Vaccines

July 2021 - October 2021

A competition hosted by the DrivenData platform to build a model capable of predicting the probability of a person having taken a Flu Shot

Ranked 65th out of 3000 participants

Preprocessing, feature engineering, building models, and testing were done with Pytorch.

Pump it Up: Data Mining the Water Table

June 2021 - September 2021

A competition hosted by the DrivenData platform to build a model capable of distributing water across Tanzania

Ranked 1399th out of 12488 participants

Exploratory data analysis, preprocessing, building models, and testing were done with Pytorch.

Phylogenetic Tree Construction and Workflow

February 2020 - June 2020

Web application to analyze DNA sequences and visualize the phylogenetic tree.

Developed the backend for a final year project to present it as a business application

Technologies used - Python, Django, React, and JIRA

Research Interests

- Natural Language Processing
- Machine Learning and Artificial Intelligence
- Game Development

Awards

Dean's List

2018 - 2022

For Semesters 1, 2, 3, 5, 6, 7, and 8 at Faculty of Engineering, University of Moratuwa

RealHack 2.0

2019

Finalist

Inter-university Hackathon organized by the University of Kelaniya

Col. Henry Steel Olcott Memorial Prize

2015

Best student

In the Physical Science Stream of Grade 13, Dharmaraja College Kandy

Certificates

Exploratory Data Analysis for Machine Learning Course offered by IBM via Coursera	<i>2015</i>
Game Theory Course offered by Stanford University and The University of British Columbia via Coursera	<i>2015</i>
Network Essentials and Packet Tracer Course offered by Cisco	<i>2015</i>

Language proficiencies

English	Excellent fluency - 108/120 TOEFL
Sinhala	Excellent fluency - Native language

Activities and Memberships

Member of the Baseball Team - University of Moratuwa University Colors Holder 2019 Champions - Mahesh Fernando Memorial Baseball Championship 2018 & 2019 Champions - Inter Faculty Champions 2019 (Vice-Captain) Runners-Up - Inter University Baseball Tournament 2018	<i>2019 - 2022</i>
Member of IEEE Student Branch – University of Moratuwa IEEE Xtreme Coding Competition 2019 (Participant) IEEE Xtreme Coding Competition 2018 (Participant) IEEE SLSYW Congress 2018 (Participant)	<i>2019 - 2022</i>
Member of the Science Society – Dharmaraja College Vice-Captain of Science Quiz Team Winner - Science Day Quiz 2016, Girls' High School Kandy Winner - Science Day Quiz 2015, Good Shepherd Convent Kandy	<i>2015 - 2016</i>
Member of the Baseball Team – Dharmaraja College	<i>2015 - 2016</i>

Personal Information

Full Name	Gihan Ravindu Ayeshmantha Weeraprameshwara
Citizenship	Sri Lankan
Interests	Literature, Gaming, Writing novels, and Music