

# Supun Abeysinghe

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## Education

### Purdue University

PHD (COMPUTER SCIENCE)

- Current GPA 4.0/4.0
- Researching at the intersection of machine learning and compilers.

West Lafayette, IN

Aug. 2019 - Present

### University of Moratuwa

BSC. ENG IN COMPUTER SCIENCE AND ENGINEERING

- GPA 4.06 out of 4.20
- Ranked 3<sup>rd</sup> from 123 students
- Dean's list award for all semesters (Should have a semester GPA of 3.8 or above to be in Dean's List)

Sri Lanka

Nov. 2014 - Dec. 2018

### Ranabima Royal College

HIGH SCHOOL

- G.C.E. Advanced Level, 5<sup>th</sup> in Central Province and 64<sup>th</sup> in Sri Lanka out of 35000+ candidates with Distinction (A) passes for Combined Mathematics, Physics, and Chemistry.

Kandy, Sri Lanka

2005 - 2013

## Work Experience

### Research Engineer

WSO2 Inc.

- Conducting research on using machine learning techniques to enhance the efficiency of self adaptive (auto tuning) systems which has the ability to configure and reconfigure itself to achieve optimum performance.

Colombo, Sri Lanka

Jan. 2019 - Jul. 2019

### Research Assistant

STATNLP LAB, SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN (SUTD)

- Researched in the field of Machine Learning, particularly in Natural Language Processing domain.
- Researched structured prediction with a non-decomposable loss, fake news detection using linguistic features and incorporating external evidence, deep learning, and traditional machine learning approaches.

Singapore

Jun. 2017 - Dec. 2017

### Visiting Instructor

UNIVERSITY OF MORATUWA

- Working as a teaching assistant for CS2022-Data Structures and Algorithms module
- Responsible for conducting labs

Sri Lanka

Aug. 2018 - Dec. 2019

### Freelance Developer

SELF-EMPLOYED

- Involved in application development projects as a freelance developer.

2016 - 2017

## Publications

### ADAPT-T: An Adaptive Algorithm for Auto-Tuning Worker Thread Pool Size in Application Servers

NILUSHAN COSTA, MALITH JAYASINGHE, AJANTHA ATUKORALE, SUPUN ABEYSINGHE, SRINATH PERERA, ISURU PERERA

International Symposium on Computers and Communications (ISCC), Barcelona, Spain [to appear]

2019

### Sentylic at IEST 2018: Gated Recurrent Neural Network and Capsule Network Based Approach for Implicit Emotion Detection

PRABOD RATHNAYAKA, SUPUN ABEYSINGHE, CHAMOD SAMARAJEWA, ISURA MANCHANAYAKE, MALAKA WALPOLA

9th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis, Brussels, Belgium

2018

### Enhancing Decision Making Capacity in Tourism Domain Using Social Media Analytics

SUPUN ABEYSINGHE, ISURA MANCHANAYAKE, CHAMOD SAMARAJEWA, PRABOD RATHNAYAKA, MALAKA J. WALPOLA,

RASHMIKA NAWARATNE, THARINDU BANDARAGODA, DAMMINDA ALAHAKOON

Proceedings of International Conference on Advances in ICT for Emerging Regions, Colombo, LK.

2018

## Honors & Awards

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- 2018 **Dean's List Award**, Dean's list award for all semesters (Should have a semester GPA of 3.8 or above to be in Dean's List)
- 2014 **Mahapola Scholarship Recipient**, Awarded by the Government of Sri Lanka for most outstanding students in G.C.E Advanced Level

## Competition Awards

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- 2018 **World Rank - 60 (Top 1.5%), Country Rank - 01**, IEEEExtreme v12.0 - IEEEExtreme is one of the largest worldwide competitive programming contest
- 2018 **5<sup>th</sup> Place**, Implicit Emotion Detection Shared Task, Organized as part of WASSA 2018 at EMNLP 2018
- 2018 **31<sup>st</sup> Place (Top 0.8%)**, DengAI: Predicting Disease Spread task, task was to predict the number of Dengue cases recorded
- 2018 **Champions**, MoraXtreme v3.0 - An internal 12 hour competitive programming competition
- 2016 **World Rank - 106 (Top 5%), Country Rank - 03**, IEEEExtreme v10.0 - IEEEExtreme is one of the largest worldwide competitive programming contest
- 2016 **First Place**, Code Breaker - Bethem Challenge: An island wide, 24 hour competitive programming contest organized by 99x Technologies, Sri Lanka.
- 2016 **Champions**, MoraXtreme v1.0 - An internal 12 hour competitive programming competition
- 2016 **Second Place**, AcesCoders v6.0: All island 12 hour competitive programming contest for undergrads. Ranked 2<sup>nd</sup> out of 102 teams

## Skills

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<b>Programming Languages</b>	Python, Java, Scala, JavaScript, C++, C
<b>Web Frameworks</b>	Angular, AngularJS, JQuery, Node.js, Spring-boot, Bootstrap, Jhipster
<b>Databases</b>	MySQL, MongoDB
<b>Machine Learning Frameworks</b>	PyTorch, Scikit-learn, Keras, Tensorflow
<b>Interested Areas</b>	Machine Learning, Natural Language Processing, Deep Learning, Information Retrieval, Programming Languages, Distributed Systems

## Projects

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### Enhancing Decision Making Capacity in Tourism Domain Using Social Media Analytics

[HTTPS://GITHUB.COM/SENTYLIC](https://github.com/sentylic)

2018

- A platform which has the ability to extract reviews for any entity, identify aspects/topics discussed, find the sentiment expressed towards each aspect and extract emotions and visualize the insights (Research Project)
- Used Technologies: PyTorch, Keras, Tensorflow, Python, Flask, Java, Node.js
- Machine learning based research project

### Sri Lanka Restaurant Reviews Search Index

[HTTPS://GITHUB.COM/SMB564/CS4642-IR-RESTAURANTS](https://github.com/SMB564/CS4642-IR-RESTAURANTS)

2018

- A search index for a scraped set of restaurants reviews was built using Apache Solr. Information Retrieval techniques have been employed to improve the performance of the retrieval model.
- Used Technologies: Apache Solr, Scrapy
- Information retrieval based project

### Peer to Peer File Sharing System

DISTRIBUTED SYSTEMS MODULE PROJECT

2018

- A distributed P2P file sharing system which has an unstructured P2P overlay network
- Used Technologies: Python

### Career Fair - CV Portal

[HTTPS://GITHUB.COM/SMB564/CAREER-FAIR](https://github.com/SMB564/CAREER-FAIR)

2018

- A SharePoint add-in for sharing CVs of final year students with the industry prior to the career fair.
- Used Technologies: Share-Point, JavaScript, AngularJS

### Internship Portal

[HTTPS://GITHUB.COM/SMB564/INTERNSHIP-SHAREPOINT-ADDIN](https://github.com/SMB564/INTERNSHIP-SHAREPOINT-ADDIN)

2017

- A SharePoint add-in for sending the CVs of interns to their selected companies. Currently hosted at department SharePoint site.
- Used Technologies: Share-Point, JavaScript, AngularJS

## CV Feedback Portal

[HTTPS://GITHUB.COM/SMB564/CV-FEEDBACK-SHAREPOINT-ADD-IN](https://github.com/SMB564/CV-FEEDBACK-SHAREPOINT-ADD-IN)

2016

- A web-based system where CVs of undergraduates are reviewed by the Alumni members of the department. Currently hosted at department SharePoint site.
- Used Technologies: Share-Point, JavaScript, AngularJS

## UniConnect System

[HTTPS://GITHUB.COM/SMB564/UNICONNECT](https://github.com/SMB564/UNICONNECT)

2016

- UniConnect is an academic resource sharing and opportunity seeking web system for undergraduate students
- Used Technologies: Java Spring-Boot, AngularJS, MongoDB, JHipster

## Tank Game Client

[HTTPS://GITHUB.COM/SMB564/TANK-GAME](https://github.com/SMB564/TANK-GAME)

2016

- A game client that will connect and play with a Tank Game server. A game playing AI and game graphics were implemented
- Used Technologies: C#, Unity

## Energy Monitoring System

[HTTPS://GITHUB.COM/SMB564/ENERGY-MONITORING-SYSTEM](https://github.com/SMB564/ENERGY-MONITORING-SYSTEM)

2016

- An online system to monitor energy consumption and an online portal to manage and perform customer transactions
- Used Technologies: AngularJS, Node.js, MySQL

## ERP System for Kandy Plastics PVT(LTD)

2016

- An online system to monitor energy consumption and an online portal to manage and perform customer transactions
- Used Technologies: Qt Framework, C++

## Volunteer Experience

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### Secretary

Sri Lanka

COMPUTER SOCIETY, IEEE STUDENT BRANCH, UNIVERSITY OF MORATUWA

2017

- Involved in challenge creation for all island and university level competitive programming contest
- Conducted awareness sessions and talks

## Professional Affiliations

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### IEEE Student Member

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

2015 - PRESENT

- Institute of Electrical and Electronic Engineers is the world's largest technical professional organization

### IESL Student Member

INSTITUTION OF ENGINEERS SRI LANKA

2016 - PRESENT

- The Institution of Engineers Sri Lanka is the main governing body of engineers in Sri Lanka

## References

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### Dr. Malaka Walpola

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### Dr. Charith Chitraranjan

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### Dr. Uthayasanker Thayasivam

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