

Tharushi Kamalika Jayasekara

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A CS graduate looking forward to challenging greater heights in the field of research in Natural Language Processing.

Education

Cornell, Maryland, Max Planck Pre-doctoral Research School 2022

Max Planck Institute for Software Systems, Germany

Bachelor of Science Honours in Computer Science 2017-2022

University of Colombo School of Computing (UCSC), Sri Lanka

GPA - 3.98 Batch Rank - 1st/ 160 IELTS - 8.0

Natural Language Processing - A+ Mathematical Methods - A

Final Year Research in CS - A Research Methods - A

Primary and Secondary Education 2001-2015

Musaeus College, Colombo 07

GCE Advanced Level Exam 2015

Z-score - 2.23 Rank - Country-wide 4th place in Combined Math, Physics, ICT

Research Publications

A Comprehensive Analysis of Aspect-Oriented Suggestion Extraction from Online Reviews

T.K. Jayasekara, A. R. Weerasinghe, W. V. Welgama

In Press

Deep Learning Applications, Volume 4 - Springer

○ An extension of the research paper published at IEEE ICMLA 2021.

Aspect Oriented Suggestion Extraction from Online Reviews

T.K. Jayasekara, A. R. Weerasinghe, W. V. Welgama

2021

20th IEEE International Conference on Machine Learning and Applications (ICMLA) 2021

○ Introduced a novel task decomposition to identify product improvements, which proved to be very effective in determining suggestions from non-suggestions, achieving an **F-score of 91%** with BERT pre-trained language model, outperforming state-of-the-art methods on suggestion mining.

Experience

Software Engineer, WSO2 Inc.

Research and Development (R&D) Team

May 2021 - Present

○ Developing language server features such as completions, code actions, signature help, hover, rename in Java for the compiler backend of Ballerina Programming Language.

Outreachy Intern at the Open Information Security Foundation (OISF), USA

Project: Improving Python tools for Suricata

Dec 2020 - Feb 2021

○ Improved Python tools for Suricata, an open source network threat detection engine.

○ Implemented parallel tests capability which reduced the running time from 88s to 45s.

Software Engineer Intern, WSO2 Inc.

Project: Smart Syntax Highlighter for Ballerina Programming Language

Sep 2019 - Jan 2020

○ Developed a semantic syntax highlighter for Ballerina, a cloud native programming language.

○ Participated at the Ballerina MIT IAP Program 2020

Awards

Academic

- Awarded the **ICT Student Award in Undergraduate Category** at the Computer Society of Sri Lanka (CSSL) National ICT Awards 2022 **among CS undergraduates in Sri Lanka**.
- Awarded **Student of the Year Award 2020** for excellence in academics, sports, aesthetic and cultural, leadership, conduct and character from **over 2000 students** at University of Colombo.
- Awarded **Prof. Mohan Munasinghe Award in Computer Science 2020** for achieving the **highest GPA (3.98/ 4.0)** in the Computer Science degree programme from 160 students.
- Awarded **Prof. V. K. Samaranayake Memorial Medal 2020** for the Most Outstanding Graduate of the UCSC awarded out of 400 students.
- Awarded **Grace Hopper Scholarship 2020** by AnitaB.org to attend Grace Hopper Celebration, world's largest gathering of women in computing in USA, as one of the 100 international scholars.
- Awarded **Google APAC Women Techmakers' Scholarship 2019** given to **75 out of 25,000 applicants** based on academic accomplishments, technical skills, impact on diversity and leadership.
- Awarded the **Henry Steel Olcott Memorial Prize for Outstanding Performance** at Musaeus College for ranking **4th country-wide, 1st in Colombo district** at GCE Advanced Level Examination 2015.

Hackathons

- Emerged **Champions** at SheCODERess v2.0 in 2018, out of 180 participants from 60 teams.
- Emerged **Champions** at Hackaholics 2.0 in 2017, an intra-university hackathon organized by the IEEE Women In Engineering Student Branch Affinity Group of UCSC.
- Achieved a **country rank of 63** and a **global rank of 598** at IEEEExtreme 11.0 in 2017, out of more than **2220 teams**.

Sports

- Awarded **University Colors in Scrabble** for emerging Champions at 6 Scrabble Championships.

Skills

- **Programming Languages:** Java, Python, C/C++, Javascript, Typescript, Ballerina
- **Data Analytics:** Python, R & Octave, Weka, PyTorch, Keras & Tensorflow
- **Development:** HTML5, CSS, JavaScript, Angular, React, Node, Express AJAX, JQuery

Presentations

- **Aspect Oriented Suggestion Mining from Online Reviews**, 20th IEEE International Conference on Machine Learning and Applications (ICMLA) 2021, Pasadena, USA.
- **Improving Python Tools for Suricata**, SuriCon 2021, Boston, USA. Annual open source technology community conference that highlights discussions and developments relative to Suricata. suricon.net/suricon-2021-boston
- **A Beginner's Guide to Adding New Features to Suricata**, [webinar](#).

References

- **Dr. A. R. Weerasinghe**, Senior Lecturer, University of Colombo School of Computing.
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- **Mr. Viraj Welgama**, Senior Lecturer, University of Colombo School of Computing.
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