YASASI ABEYSINGHE

Ph.D. Student | Graduate Research Assistant

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RESEARCH INTERESTS

Machine Learning, Data Science, Human-Computer Interaction, Eye Tracking

EDUCATION

Ph.D., Computer Science, Old Dominion University, USA

📅 January 2022 – Present

GPA: 4.0   Advisor: Dr. Sampath Jayarathna

B.Sc. Engineering (Hons), Computer Science & Engineering, University of Moratuwa, Sri Lanka

📅 October 2014 – December 2018

Specialized in Integrated Computer Engineering (ICE)   GPA: 3.71   Award: First Class Honors
Dean's list: Semesters 2, 6, & 8

Diploma in Computer System Design, National Institute of Business Management, Sri Lanka

📅 October 2013 – October 2014

Distinction

Diploma in English, Oxford College of Business, Sri Lanka

📅 September 2013 – January 2014

Distinction

G.C.E. Advanced Level Examination in Physical Science, Sirimavo Bandaranaike Vidyalaya, Colombo 07, Sri Lanka

📅 August 2013

Physics: A   Chemistry: A   Combined Maths: A   Z Score: 2.0659

WORK EXPERIENCE

Graduate Research Assistant, Old Dominion University, USA

📅 January 2022 – Present

Senior Software Engineer, Sysco LABS, Sri Lanka

📅 September 2020 – December 2021

Software Engineer, Sysco LABS, Sri Lanka

📅 January 2019 – September 2020

Engineering Intern, LSEG Technology | London Stock Exchange Group, Sri Lanka

📅 June 2017 – December 2017

ACHIEVEMENTS

🏆 **CINTEC Award - Academic Year 2017/2018**
This is awarded to the student who has earned the highest marks for the Final Year Research.

SKILLS

Programming Languages: Python, Java, C, C++, HTML/CSS/JavaScript, Golang, NodeJS
AWS: AWS Kinesis, DynamoDB, RDS, S3, CloudWatch, EC2, AWS Lambda, Elastic Container Service (ECS), Elastic File System (EFS), Amazon Polly, Route 53, AWS Database Migration Service (DMS)
Databases: MySQL, MongoDB, Sqlite
Platform: Apache Kafka
Version Control: Git
IDEs: PyCharm, IntelliJ IDEA, NetBeans, CodeBlock
Devices: Tobii Eye Tracker, Pupil Labs Eye Tracker, Raspberry pi, Arduino
Microsoft Office: MS Word, MS Excel, MS PowerPoint

PUBLICATIONS

👥 Conference Proceedings

- Bhanuka Mahanama, Gavindya Jayawardena, Yasasi Abeysinghe, Vikas Ashok, and Sampath Jayarathna (2022). "Multidisciplinary reading patterns of digital documents". In: *ACM Symposium on Eye Tracking Research and Applications*.

- Rashindrie Perera, Tamasha Malepathirana, Yasasi Abeysinghe, Yumna Albar, and Uthayasanker Thayasivam (2019). "Amalgamation of General and Domain Specific Word Embeddings for Improved Hierarchical Aspect Aggregation". In: *2019 IEEE 13th International Conference on Semantic Computing (ICSC)*, pp. 55–62.

- Tamasha Malepathirana, Rashindrie Perera, Yasasi Abeysinghe, Yumna Albar, and Uthayasanker Thayasivam (Oct. 2019). "Adaptation of Multivariate Concept to Multi-Way Agglomerative Clustering for Hierarchical Aspect Aggregation". In: *AAAI 32nd International Florida Artificial Intelligence Research Society (FLAIRS) Conference*.

PROJECTS

Oculomotor Plant Feature Evaluation for an Objective Measure of Working Memory Capacity, Old Dominion University

📅 January 2022 – Ongoing

Python | Tobii Pro Eye Tracker
Studies how the human eye (oculomotor plant) features can be utilized to measure the working memory capacity of a human.

Mining Electronic Theses and Dissertations, Old Dominion University

📅 April 2022 – Ongoing

Python | Tesseract | Deep Learning Image Classification | OCR
As a part of this project, working on encoding Electronic Theses and Dissertations (ETDs) using deep learning techniques and building a binary classifier that will predict the cover pages of ETDs.

Synthetic Prediction markets with Algorithm Traders for Determining Experimental Reproducibility, Old Dominion University

📅 January 2022 – April 2022

Python
Collaborative project with Pennsylvania State University. Built a module that extracts paper-level and claim-level features of scientific papers such as figure and table mentions in order to facilitate exploring automatic methods to assess the reproducibility of scientific papers, focusing on social and behavioral science papers.

SPEED Adapter, Sysco LABS

📅 January 2019 – December 2021

Java | Maven | AWS Kinesis | Kafka | Avro | Apache NiFi | Python | NodeJS
SPEED Adapter is built based on AWS Kinesis Streaming platform and Kafka platform which provides the capability to ingest and consume serialized or binary data into/from Amazon Kinesis Streams/Kafka topics.

Sysco Kinesis Agent, Sysco LABS

📅 March 2019 – December 2021

Java | Maven | AWS Kinesis
A stand-alone Java application developed by enhancing the AWS Kinesis Agent to support to ingest compressed data into Amazon Kinesis Streams and supports data consumption through decompression.

API Central, Sysco LABS

📅 January 2019 – December 2021

Google Apigee | GO language | Java | Kotlin | Bash | AWS | Docker | Python
A platform which provides API Management capabilities to Sysco with the use of Google Apigee API Manager and WSO2 API Manager.

Context Aware Hierarchical Aspect Aggregation, University of Moratuwa

📅 January 2018 – December 2018

Python | Machine Learning | Natural Language Processing | Data Mining
A research on generation of review aspect term hierarchy using word embedding and clustering carried out as the Final Year Project of the undergraduate course.

Code Review Coverage Reporter, LSEG Techology

📅 June 2017 – December 2017

Python | HTML | CSS | AngularJS | Grafana
A tool which is currently used by LSEG Technology to measure the compliance of each project team to Code Review Guidelines.

DengAI: Predicting Disease Spread, University of Moratuwa

📅 January 2018 – July 2018

Python | Machine Learning | Data Mining
A project of predicting the number of dengue cases each week based on environmental variables.

Smart Math Tutor, University of Moratuwa

📅 February 2017 – May 2017

Python | Raspberry pi 3 | Raspberry Pi Camera Module V2 | LCD Screen
A stand-alone device that helps to solve handwritten or printed mathematical equations by capturing a photograph of it.

EpiCure, University of Moratuwa

📅 September 2016 – December 2016

PHP | Laravel Framework | Android Studio | Sqlite | MySQL
Mobile app that can be used to collect epidemiologic data from across the country.

Smart Wheelchair, University of Moratuwa

📅 September 2016 – December 2016

Python | Myo-Band | Raspberry pi 3
Smart Wheelchair allows driving the wheelchair with use of hand movements.

Smart Gesture Glove, University of Moratuwa

📅 January 2016 – May 2016

Android Studio | Ardiuno | Flex Sensors
A glove that allows speech impaired people to communicate by translating sign language into words and displaying it on a mobile app.

VOLUNTEERING

- Poster Judge - ACM Capital Region Celebration of Women in Computing Conference (CAPWIC 22)

MEMBERSHIPS

- Vice President - Membership, Sysco LABS Toastmasters Club, 2020 - 2021
- Student member of Institute of Electrical and Electronic Engineers, Sri Lanka (IEEE)
- Member of Rotaract Club, University of Moratuwa
- Member of IEEE Women in Engineering (WIE), University of Moratuwa
- Member of organizing committee of IESL RoboGames, Sri Lanka, 2016