

Senuri De Silva

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EDUCATION

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- **National University of Singapore** January 2022 - Present
• *PhD candidate, Yong Loo Lin School of Medicine* CGPA: 4.00
 - **University of Moratuwa, Sri Lanka** Nov 2015 - Jan 2020
• *First Class Honors, Bsc.Eng (Hons) specialized in Computer Science and Engineering.* CGPA: 3.87

SELECTED RESEARCH (8 FIRST-AUTHOR PUBLICATIONS + 2 UNDER REVIEW + 2 WORK IN PROGRESS)

- **PhD Candidate: Advised by Dr. Jayantha Gunaratne and Prof. Wong Limsoon**
- *Institute of Molecular and Cell Biology, Agency for Science, Technology and Research (A*STAR)*
 - **Focus:** Computational proteomics for cancer subtype discovery and biomarker development, with emphasis on tumor microenvironment dynamics, and translational relevance to immunotherapy and metastasis.
 - **De Silva, S., Alli-Shaik, A., & Gunaratne, J. (2024).** Machine Learning-Enhanced Extraction of Biomarkers for High-Grade Serous Ovarian Cancer from Proteomics Data. *Scientific Data*, 11(1), 685.
 - **De Silva, S., Alli-Shaik, A., & Gunaratne, J. (2024).** FlexStat: combinatory differentially expressed protein extraction. *Bioinformatics Advances*, 4(1), vbae056.
- **Undergraduate Researcher: Advised by Prof. Dulani Meedeniya and Dr. Sampath Jayarathna**
- *University of Moratuwa*
 - **Focus:** Machine learning and deep learning model development for attention deficit hyperactivity disorder (ADHD) identification using eye movements and functional MRI data in children and adults.
Selected publications:
 - **De Silva, S., Dayarathna, S., Ariyaratne, G., Meedeniya, D., Jayarathna, S., & Michalek, A. M. (2021).** Computational Decision Support System for ADHD Identification. *International Journal of Automation and Computing*, 18(2), 233-255. DOI: 10.1007/s11633-020-1252-1
 - **De Silva, S., Dayarathna, S., Ariyaratne, G., Meedeniya, D., Jayarathna, S., Michalek, A. M., and Jayawardena, G. (2019, July).** A rule-based system for ADHD identification using eye movement data. In *2019 Moratuwa Engineering Research Conference (MERCon)* (pp. 538-543). IEEE. DOI:10.1109/MERCon.2019.8818865
 - **Ariyaratne, G., De Silva, S., Dayarathna, S., Meedeniya, D., and Jayarathne, S. (2020, February).** ADHD identification using convolutional neural network with seed-based approach for fMRI data. In *Proceedings of the 2020 9th International Conference on Software and Computer Applications* (pp. 31-35). DOI: 10.1145/3384544.3384552

HONORS AND AWARDS

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- **Early Career Researcher Poster Competition Finalist** Sep 2023
 - HUPO 2023 World Congress for the poster in Data Integration and Innovative Computational Methods for System Biology category
 - **Best Oral Talk Award** Dec 2022
 - Awarded at the 1st Asian Student Council Symposium, preceding the GIW XXXI/ISCB-Asia V conference
 - **Singapore International Graduate Award (SINGA)** Dec 2020
 - Awarded to pursue doctoral studies at National University of Singapore
 - **CINTEC Award** Dec 2020
 - Awarded for the Best Final Year Project of Year at University of Moratuwa Annual Awards Ceremony
 - **Best Paper Award** July 2019
 - Awarded for the Best Paper of the Biomedical Engineering Category at MERCon19.

WORK EXPERIENCE

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- **Enactor UK - Senior Software Engineer** Feb 2020 - Dec 2021
 - Performance & Scalability, Development and Operations. Developed and optimized distributed file system workflows.
 - **WSO2 - Software Engineering Intern** Jun 2018 - Dec 2018
 - Developed report generation for Stream Processing Analytic Application. Developed a Siddhi extension to support report generation for streaming data.

REFERENCES

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- Dr. Jayantha Gunaratne: Principal Investigator of Translational Biomedical Proteomics Lab, Institute of Molecular And Cell Biology (IMCB) jayanthag@imcb.a-star.edu.sg
 - Prof. Dulani Meedeniya: Senior Lecturer, Department of Computer Science and Engineering, University of Moratuwa dulanim@cse.mrt.ac.lk