DARSHANA RATHNAYAKE

CONTACT DETAILS

RESEARCH INTERESTS

Areas: Mobile Systems, Applied Machine Learning, & Pervasive Sensing

• Architecturing end-to-end Machine Learning pipelines for IoT-based mobile/wearable systems.

EDUCATION

Singapore Management University, Singapore

2021 - current

PhD Student in Computer Science

· Advisors: Prof. Archan Misra (SMU)

University of Moratuwa, Sri Lanka

2016 - 2020

BSc. Engineering in Computer Science & Engineering (First-class honours)

- · CGPA of 3.75/4.2
- · Thesis: A Multimodal Sensor Fusion Framework for Mixed Reality Environment
- · Advisors: Prof. Archan Misra (SMU), Dr. Indika Perera (UOM), and Lakmal Meegahapola (EPFL)

WORK EXPERIENCE

SMU-CMU Living Analytics Research Centre, Singapore

Feb. 2020 - July. 2021

Research Engineer

· Advisors: Prof. Archan Misra & Dr. Meera Radhakrishnan

Singapore Management University, Singapore

Jul. 2018 - Dec. 2018

Research Assistant

· Advisor: Assoc. Prof. CHENG Shih-Fen

PUBLICATIONS

- **D. Rathnayake**, M. Radhakrishnan, I. Hwang, A. Misra, "LILOC: Enabling Precise 3D Localization in Dynamic Indoor Environments using LIDARs", Accepted at IoTDI 2023
- M. Radhakrishnan, **D. Rathnayake**, O. K. Han, I. Hwang, A. Misra, "ERICA: Enabling Real-time Mistake Detection & Corrective Feedback for Free-Weights Exercises", Accepted at ACM SenSys 2020
- **D. Rathnayake**, A.K. De Silva, D. Puwakdandawa, L.B. Meegahapola, A. Misra, I. Perera, "Jointly Optimizing Sensing Pipelines for Multimodal Mixed Reality Interactions" IEEE Conference on Mobile Ad-Hoc and Smart Systems (MASS), Delhi, India, 2020.
- **D. Rathnayake**, A. Wickramarachchi, V. Mallawaarachchi, D. Meedeniya, I. Perera, "A Realtime Monitoring Platform for Workflow Subroutines" 2018 18th International Conference on Advances in ICT for Emerging Regions (ICTer), Colombo, Sri Lanka, 2018, pp. 41-47.

ACHIEVEMENTS

Dean's List - University of Moratuwa (For outstanding academic achievement in semester 1, 3, 7, & 8) 2020

Winner - Datathon (Organised by Dialog Axiata in partnership with Microsoft, Huawei & PickMe.) 2019

Winner - Rotaract Idea Challenge (Organized by the Rotaract Club of University of Colombo) 2018