

## Dulanga Weerakoon

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### CONTACT INFORMATION

**Name:** Weerakoon Mudiyansele Dulanga Kaveesha Weerakoon  
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**Contact number:** +65 9081 1084  
**Current position:** PhD student (Advisor: Prof. Archan Misra, Co-Advisor: Dr. Vigneshwaran Subbaraju)

### EMPLOYMENT HISTORY

**PhD Research Intern** Jan 2023-Jan 2024  
Institute of High Performance Computing, A\*STAR, Singapore  
Advisor: Dr. Vigneshwaran Subbaraju

**Research Engineer** July 2018-July 2019  
Living Analytics Research Centre (LARC), Singapore Management University  
Advisor: Prof. Archan Misra

**R&D Engineer** Feb 2018-June 2018  
Synopsys, Sri Lanka

**Research Assistant** Aug 2016 - Jan 2017  
LiveLabs, Singapore Management University  
Advisor: Prof. Archan Misra

**Visiting Instructor** Mar 2016-Apr 2016  
University of Moratuwa, Sri Lanka

### ACADEMIC QUALIFICA- TIONS

**Ph.D. in Computer Science** 2019-Current  
Singapore Management University  
Advisor: Prof. Archan Misra  
GPA: 3.89

**B.Sc. Engineering Honours** 2014-2018  
University of Moratuwa, Sri Lanka  
Major: Electronic & Telecommunication Engineering GPA: 3.61

### RESEARCH INTERESTS

Human-AI Collaborative Systems, Multi-Modal Sensing, Mobile and Pervasive Computing, Deep Learning in Embedded Systems

### PUBLICATIONS

**Weerakoon, D.**, Subbaraju, V., Tran, T. and Misra, A., 2023, January. Demonstrating Multi-modal Human Instruction Comprehension with AR Smart Glass. 15th International Conference on COMMunication Systems NETWORKS (COMSNETS 2023). [Demo paper]

**Weerakoon, D.**, Subbaraju, V., Tran, T. and Misra, A., 2022, October. SoftSkip: Empowering Multi-Modal Dynamic Pruning for Single-Stage Referring Comprehension.

sion. In *Proceedings of the 30th ACM International Conference on Multimedia* (pp. 3608-3616). [Full paper]

**Weerakoon, D.**, Subbaraju, V., Tran, T. and Misra, A., 2022. Cosm2ic: Optimizing real-time multi-modal instruction comprehension. *IEEE Robotics and Automation Letters*, 7(4), pp.10697-10704. [Full Paper]

**Weerakoon, D.**, Subbaraju, V., Karumpulli, N., Tran, T., Xu, Q., Tan, U., Lim, JH., and Misra, A., 2020. Gesture Enhanced Comprehension of Ambiguous Human-to-Robot Instructions. In *Proceedings of the 2020 International Conference on Multimodal Interaction (ICMI '20)*. [Full paper]

Abdelzaher, T., Hao, Y., Jayarajah, K., Misra, A., Skarin, P., Yao, S., **Weerakoon, D.** and Árzén, K.E., 2020. Five challenges in cloud-enabled intelligence and control. *ACM Transactions on Internet Technology (TOIT)*, 20(1), pp.1-19. [Full paper]

Yao, S., Hao, Y., Zhao, Y., Piao, A., Shao, H., Liu, D., Liu, S., Hu, S., **Weerakoon, D.**, Jayarajah, K. and Misra, A., 2019, July. Eugene: Towards deep intelligence as a service. In *2019 IEEE 39th International Conference on Distributed Computing Systems (ICDCS)* (pp. 1630-1640). IEEE. [Full paper]

**Weerakoon, D.**, Jayarajah, K., Tandriansyah, R. and Misra, A., 2019, July. Resilient Collaborative Intelligence for Adversarial IoT Environments. In *2019 22th International Conference on Information Fusion (FUSION)* (pp. 1-8). IEEE. [Full paper]

Misra, A., **WEERAKOON MUDIYANSELAGE, D.K.W.** and Jayarajah, K., 2019. The challenge of collaborative iot-based inferencing in adversarial settings. [Workshop paper]

Misra, A., Jayarajah, K., **Weerakoon, D.**, Tandriansyah, R., Yao, S. and Abdelzaher, T., 2019, May. Dependable machine intelligence at the tactical edge. In *Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications (Vol. 11006, p. 1100608)*. International Society for Optics and Photonics. [Full paper]

Jayarajah, K., Subbaraju, V., **Weerakoon, D.**, Misra, A. and Athaide, N., 2017, May. Discovering anomalous events from urban informatics data. In *Ground/Air Multisensor Interoperability, Integration, and Networking for Persistent ISR VIII (Vol. 10190, p. 101900F)*. International Society for Optics and Photonics. [Full paper]

## HONORS & AWARDS

### **Postgraduate Doctoral Fellowship in Computing**

Offered to the exceptionally qualified students at SMU based on research outcomes

### **2<sup>nd</sup> place in Kaggle competetion for Product Detection**

Hosted by Shopee, Singapore

2<sup>nd</sup> place out of 646 teams

### **2<sup>nd</sup> place in Kaggle competetion for Sentiment Analysis**

Hosted by Shopee, Singapore

2<sup>nd</sup> place out of 317 teams

### **Dean's list in Semesters 6 & 8 of B.Sc. degree**

Semester GPA: 4.00

### **Winner of Second Prize, Ideasinc startingUp 2016 Hackathon**

Organized by Nanyang Technopreneurship Center, Nanyang Technological University, Singapore

**CERTIFI-  
CATIONS**

***CS50x: Introduction to Computer Science I***  
*Offered by HarvardX through edx.org in 2013*

***6.002x: Circuits and Electronics***  
*Offered by MITx through edx.org in 2013*

***PHYS102x: Electricity and Magnetism***  
*Offered by RiceX through edx.org in 2013*

**EXTRA  
INTERESTS &  
AWARDS**

***Team member of SMU Table Tennis Team***  
*Won 2<sup>nd</sup> place in Institute-Varsity-Polytechnic games (IVP), Singapore.*

***Team member of University of Moratuwa Table Tennis Team***  
*Recipient of extra-curricular colors awards*