Kaushalya Madhawa

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EDUCATION:

PhD in Computer Science (Major in Artificial Intelligence) Oct 2016 - Present
Tokyo Institute of Technology
Advisor: Tsuyoshi Murata

Master of Computer Science Jan 2013 - Jan 2015
University of Colombo - School of Computing

Bachelor of Science in Computer Science and Engineering June 2007 - Nov 2011
University of Moratuwa
Second-Class Honors, Upper division GPA: 3.41

PROFESSIONAL EXPERIENCE:

Research Assistant at Tokyo Institute of Technology *Jan 2017 – Present*

- CREST Deep project: "Fast and cost-effective deep learning algorithm platform for video processing in social infrastructure" – Funded by Japan Science and Technology Agency (JST)

Researcher at LIRNEasia *April 2014 – March 2016*

- As a member of the Big Data for Development (BD4D) project involved in analysing a large dataset of anonymized call detail records (CDR) obtained from multiple mobile operators in Sri Lanka.

Software Engineer at Codegen International Ltd. *Dec 2011 – April 2014*

- As a member of the Research and Development team implemented the some functionalities of the new Revenue Management web application.
- Responsible for implementing new functionality in flights module of the Travelbox software platform.

Internship at Excel Technology Lanka Ltd. *Feb 2010-Jul 2010*

- Implemented a laser path optimization algorithm to minimize the cost of laser head traversal. This implementation was based on Lin-Kernighan heuristic algorithm.
- Designed and implemented a bezier curve to circular arc converting algorithm for XLCad software to reduce the laser marking time.

PUBLICATIONS:

P.K.K. Madhawa and A.S. Athukorale, "A Robust Algorithm for Determining the Newsworthiness of Microblogs", International Conference on Advances in ICT for Emerging Regions (ICTer), Colombo, Sri Lanka, 2015 (to appear)

K. Madhawa, S. Lokanathan, R. Samarajiva, D. Maldeniya, "Understanding communities using mobile network big data", Communication Policy Research - south (CPRsouth), Taipei, Taiwan, 2015. (to appear)

P.K.K. Madhawa, "Twitsum : Automatic generation of event summaries using microblog streams", Masters Thesis, University of Colombo, Colombo, 2015.

K. Madhawa , S. Lokanathan, D. Maldeniya, R. Samarajiva "Land use classification using call detail records", 5th conference on the scientific analysis of mobile phone datasets, pp. 104-106, MIT Media Lab, Cambridge, MA, 2015. (Selected for poster presentation)

P.K.K. Madhawa, U.R.V. Sandaruwan, M.S. Jeevananda, P.M.B.C. Malmi and K. Wimalawarne, "HYDRA: A machine learning toolkit for massively parallel systems", CS & ES Research Conference, Colombo, Sri Lanka, 2011.

COMPUTING SKILLS

Languages: Java, Python, R, C/C++,

Distributed computing: Apache Hadoop, Apache Pig, Apache Giraph, Apache Hive

Databases: Oracle, Postgresql, MySQL

AWARDS AND HONORS:

- Member of the 3-member group which became 50th in the world in IEEEXtreme programming competition 2009 organized by IEEE.
- Listed on Dean's list in Level 1 semester 1 (GPA : 3.84)
- Listed on Dean's list in Level 1 semester 2 (GPA : 3.98)
- Won bronze medal at Sri Lankan Physics Olympiad 2006

INDIVIDUAL COURSEWORK:

Completed Online Open courses on Coursera platform

- Machine Learning
- Quantum Mechanics and Quantum Computation
- Heterogeneous Parallel Computing
- Computing for Data Analysis
- Data Analysis
- Introduction to Data Science
- Introduction to Recommender Systems

RESEARCH INTERESTS:

- Machine Learning
- Graph theory