

Kasthuri Jayarajah

CONTACT INFORMATION

Living Analytics Research Center
School of Information Systems,
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RESEARCH INTERESTS

Mobile and Pervasive Computing, Social Networks, Human Behavior Modeling, Edge Computing.

EDUCATION

Singapore Management University, Singapore.

PhD in Information Systems (Ongoing), Expected date of completion - Aug 2019.

Advisors: Dr. Archan Misra (SMU), Dr. Shili Xiang (A*STAR).

Carnegie Mellon University, Pittsburgh, USA.

Exchange Student during Fall 2016.

National University of Singapore, Singapore.

Master of Computing, Infocomm Security, June 2013.

GPA: 4.5 (<5.0)

University of Moratuwa, Sri Lanka.

B. Sc. Eng., Electronic and Telecommunication Engineering, October 2010.

Rank: 2nd, GPA: 4.10 (<4.20)

RESEARCH EXPERIENCE

Visiting Scholar

May 2017 - Aug 2017

Computer Laboratory, University of Cambridge, United Kingdom.

Advised by: Prof. Cecilia Mascolo.

Visiting Scholar

Aug 2016 - Dec 2016

Assistive Technology Group, Human-Computer Interaction Institute, Carnegie Mellon University, USA.

Advised by: Dr. Jennifer Mankoff, Dr. Anind Dey.

Research Intern

May 2015 - August 2015

Situational Understanding Research Institute, US Army Research Laboratory, USA.

Advised by: Prof. Tarek Abdelzaher (UIUC), Dr. Geeth de Mel (IBM Research).

Research Engineer

July 2012 - July 2014

Living Analytics Research Center, Singapore Management University, Singapore.

Advised by: Dr. Archan Misra.

Graduate Student Researcher

Jan 2012 - March 2012

Interactive and Digital Media Institute, National University of Singapore, Singapore.

Advised by: Dr. Owen Noel Fernando.

PROFESSIONAL EXPERIENCE

Engineer - Technology

Oct 2010 - Jan 2012

Virtusa Corporation (NYSE: VRTU), Sri Lanka.

Trainee Engineer, Huawei Technologies Lanka Co. Ltd., Sri Lanka.

Oct 2008 - Mar 2009

KEY
PUBLICATIONS

Jayarajah, K. and A. Misra. Predicting Episodes of Non-Conformant Mobility in Indoor Environments. PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), Volume 2, Issue 4, Article 172, December 2018.
UbiComp19.

Meegahapola, L., T. Kandappu, **K. Jayarajah**, A. Misra, and L. Akoglu. BuSCOPE : Fusing Individual Aggregated Mobility Behavior for Live Smart City Services, 2019.
MobiSys19.

K. DSilva, **K. Jayarajah (co-primary)**, A. Noulas, C. Mascolo, and A. Misra. The Role of Urban Mobility in Retail Business Survival. PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), Volume 2, Issue 3, Article 100, September 2018.
UbiComp18.

Jayarajah, K., A. Tan and A. Misra. Exploiting the Inter-dependency of Land Use and Mobility for Applications in Urban Planning, 2018
UbiComp/ISWC 2018 Adjunct Proceedings, Best Paper.

Gupta, R., S. Mukherjee, K. Jayarajah. Role of Group Cohesiveness in Consumers Responses to Mobile Promotions, 2017.
Association For Consumer Research Conference North America Advances (ACR).

Jayarajah, K., R. K. Balan., M. Radhakrishnan, A. Misra and Y. Lee. LiveLabs: Enabling In-Situ Behavioural Experiments, 2016.
MobiSys16.

Jayarajah, K., Y. Lee, A. Misra, R. K. Balan. Need Accurate User Behavior? Pay Attention to Groups!, 2015.
UbiComp15.

Jayarajah, K., A. Misra, X. W. Ruan, E. P. Lim. Event Detection: Exploiting Socio-Physical Interactions in Physical Spaces, 2015.
IEEE/ACM ASONAM'15.

Sen, R., Y. Lee, **K. Jayarajah**, A. Misra and R. K. Balan. GruMon: Fast and Accurate Group Monitoring for Heterogeneous Urban Spaces, 2014.
SenSys14.

Liu, S., S. Wang, **K. Jayarajah**, A. Misra and R. Krishnan. TODMIS: Mining communities from trajectories, 2013.
CIKM13.

Khan, A.J., **K. Jayarajah**, D. Han, A. Misra, R. K. Balan and S. Seshan. CAMEO: a middleware for mobile advertisement delivery, 2013.
MobiSys13.

OTHER
PUBLICATIONS

A. Misra, **K. Jayarajah**, D. Weerakoon, R. Tandriansyah, S. Yao, T. Abdelzaher. Dependable machine intelligence at the tactical edge, *SPIE Defense+Security 2019*.

D. Weerakoon, **K. Jayarajah**, R. Tandriansyah, A. Misra. Resilient Collaborative Intelligence for Adversarial IoT Environments, *The 22nd International Conference on Information Fusion (FUSION 2019)*.

L. Meegahapola1, N. Athaide, **K. Jayarajah**, S. Xiang, A. Misra. Inferring Accurate Bus Tra-

jectories from Noisy Estimated Arrival Time Records, *IEEE Intelligent Transportation Systems Conference (ITSC 2019)*.

Jayarajah, K., V. Subbaraju, N. Athaide, L. Meegahapola, A. Tan and A. Misra. Can multimodal sensing detect and localize transient events?, *SPIE Defense+Security 2018*.

Jayarajah, K., V. Subbaraju, D. Weerakoon, A. Misra, L. T. Tam and N. Athaide. Discovering Anomalous Events from Urban Informatics Data. *SPIE Defense+Security 2017*.

Jayarajah, K. and A. Misra. Can Instagram Help Understand Micro-Events?. *The 19th International Conference on Information Fusion (FUSION 2016)*.

Jayarajah, K., Z. Lantra and A. Misra. Fusing WiFi and Video Sensing for Accurate Group Detection in Indoor Spaces. *The Third Intl' Workshop on Physical Analytics (co-located with ACM MobiSys 2016)*.

Jayarajah, K., M. Radhakrishnan, C. Zakaria. Duplicate Issue Detection for the Android Open Source Project, *5th Intl' Workshop on Software Mining (co-located with IEEE/ACM Intl' Conference on Automated Software Engineering 2016)*.

Misra, A., Z. Lantra and **K. Jayarajah**. Ontology-aided Feature Correlation for Multi-Modal Urban Sensing, *SPIE Defense+Security 2016*.

Dai, B. T., **K. Jayarajah**, E. P. Lim, A. Misra, S. Nayak. A Study on Singapore Haze. 1st International Workshop on Understanding Situations Through Multimodal Sensing (co-located with ICDCN), 2016.

Jayarajah, K., S. Yao, R. Mutharaju, A. Misra, G. De Mel, J. Skipper, T. Abdelzaher, M. Kolodny. Social Signal Processing for Real-Time Situational Understanding: A Vision and Approach. *SocialSens Workshop co-located with IEEE MASS, 2015*.

Jayarajah, K., M. Radhakrishnan, C. S. Hoi, A. Misra. Candy Crushing Your Sleep, 4th Workshop on Mobile Systems for Computational Social Science (co-located with ACM Ubicomp 2015).

Nayak, S., A. Misra, **K. Jayarajah**, P. K. Prasetyo, E. Lim. Exploring Discriminative Features for Anomaly Detection in Public Spaces, *SPIE DSS 2015*.

Jayarajah, K., R. Kauffman, A. Misra. Exploring Variety Seeking Behavior in Mobile Users. *Ubicomp'14 Adjunct Proceedings, September 2014*.

Misra, A., **K. Jayarajah**, S. Nayak, P. K. Prasetyo and E. Lim. Socio-Physical Analytics: Challenges and Opportunities. 1st Workshop on Physical Analytics colocated with ACM MobiSys 2014.

Naoko, T., I. Horathalge, O. N. N. Fernando, K. Zhu, **K. Jayarajah**, Y. Fernandopulle, R. Nakatsu. KabukiMono+: The Art of Kabuki Transformed, 3rd International Conference on Culture and Computing, 2012.

Sivakumaran, P., **K. Jayarajah**, I. Kanaganayagam, C. Gopalasingham, E. C. Kulasekere. Sonar Navigation Aid for the Visually Impaired, In proceedings of the 16th Annual Symposium of the Engineering Research Unit, Sri Lanka, November 2010, 193-198.

Jayarajah, K., Z. Lantra, R. Kumar, A. Misra. Fusing WiFi and Video Sensing for Accurate Group Detection in Indoor Spaces, *ACM MobiSys 2016*.

DEMOS AND
POSTERS

Jayarajah, K., A. Misra, X. W. Ruan, E. P. Lim. Social Interactions-based Event Detection for Public Spaces , ICDCN 2016.

Jayarajah, K., Sen, R., Y. Lee, S. Nayak, A. Misra and R. K. Balan. Group analytics and insights for public spaces, ACM SenSys 2014.

Sen, R., Y. Lee, **K. Jayarajah**, A. Misra and R. K. Balan. GruMon: Fast and Accurate Group Monitoring for Heterogeneous Urban Spaces, ACM HotMobile 2014.

AWARDS AND HONORS

Best Paper Award, at the 7th International Workshop on Pervasive Urban Applications (colocated with UbiComp18) 2018.

SMU Multidisciplinary Doctoral Fellowship, 2018.

Google Women Techmakers Scholar (APAC), 2017.

Honorable Mention, Open Mobility Task Challenge, co-located with ACM Conference on Information and Knowledge Management (CIKM) 2017.

A*STAR Graduate Scholarship (AGS), 2014 - 2018. Part of the first batch of SMU scholars to be awarded the AGS. A*STAR is Singapore’s leading public sector agency for spearheading economy-oriented research in STEM.

O. N. M. Kulashethra Award for academic excellence, University of Moratuwa, 2013.

Winner of third prize, NUS School of Computing Project Showcase 2012/2013.

Certificate of Appreciation, Virtusa Corp., 2011.

Winner of Merit Award, Tertiary Category, National Best Quality Software Awards, British Computer Society, Sri Lankan Chapter, 2010.

Mahapola Scholarship, awarded by the Government of Sri Lanka, 2006.

SERVICES

Reviewer	2019, 2018, 2017	PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) - [Special Recognition for Outstanding Review × 1]
Reviewer	2019	ACM CSCW, ACM ISWC, ACM UIST, CHI’19 Late Breaking Work
Reviewer	2016	IEEE Transactions on Mobile Computing
TPC	2018	ACM MobiSys Phd Forum
TPC	2017	ACM S3 Workshop (co-located with ACM MobiCom 2017)
Web Director	2017 - current	ACM SIGMOBILE
Co-SV Chair	2018	UbiComp
Co-Web Chair	2018	UbiComp
Co-Chair	2016	Women’s Workshop co-located with MobiSys 2016
Co-Web Chair	2016	14th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys 2016)
Board Member	2015-2016	Networking Networking Women (An ACM SIGMOBILE program supported by IEEE COMSOC, IEEE TCCN, MSR, Google and HP Labs.
Web Chair	2016	17th International Conference on Distributed Computing and Networking. January, 2016
Web Chair	2015	2nd International Workshop on Physical Analytics, colocated with MobiSys’15. May, 2015
Web Chair	2015	4th ACM Workshop on Mobile Systems for Computational Social Science. September, 2015
Founding Member	2010	Environment, Health and Safety Initiative, Virtusa Corp.

STUDENTS
CO-MENTORED
WITH ADVISOR

Manasa Kalanadhabhatta (Undergrad), Shiv Nadar University, India. January – May 2018.
Dulanga Weerakoon (Undergrad), University of Moratuwa, Sri Lanka. December 2016 to February 2017.
Sumit Singh (Masters), Indian Institute of Technology, Kharagpur, India. June 2016 - July 2016.
Zaman Lantra (Undergrad), University of Moratuwa, Sri Lanka. October 2015 to April 2016.

IN MEDIA

Science Talk, The Straits Times, Urban Living in the Age of Smart City (Opinion Editorial).
Research@SMU, Issue 14, LARC Research Exhibition: Better Living Through Analytics.

REFERENCES

Prof. Archan Misra	Prof. Anind Dey
School of Information Systems	iSchool
Singapore Management University	University of Washington
archanm@smu.edu.sg	anind@uw.edu