

CAMELLIA ZAKARIA

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RESEARCH INTERESTS

Cyber-physical systems, Applied machine learning, Big-data analytics and data-driven systems, Health and Smart cities.

EXPERIENCE

Postdoctoral Research Fellow

October 2020 - Present

University of Massachusetts Amherst (UMASS Amherst), USA
Manning College of Information and Computer Sciences

Postdoctoral Research Fellow

2019

Singapore University of Technology and Design (SUTD), Singapore
Information Systems Technology and Design Pillar

Research Engineer

2013 - 2014

Singapore Management University (SMU), Singapore
School of Computing and Information Systems

Undergraduate Research Intern

2012

Singapore Management University (SMU), Singapore
Living Analytics Research Center

Lab Officer

2007 - 2009

Agency for Science, Technology and Research (ASTAR), Singapore
Institute for Infocomm Research

EDUCATION

Singapore Management University, Singapore

School of Computing and Information Systems

Ph.D. in Information Systems

2014 - 2019

B.Sc in Information Systems

2009 - 2013

Carnegie Mellon University, USA

Heinz College of Information Systems and Public Policy

Exchange Student during Fall

2016

Temasek Polytechnic, Singapore

School of Informatics

Diploma in Internet Computing

2004 - 2007

PUBLICATION

[1] **C. ZAKARIA**, P. S. Foong, C. S. Lim, P. VS Pakianathan, G. H. C. Koh, and S. T. Perrault, "Does mode of digital contact tracing affect user willingness to share information? a quantitative study," Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI), pp. 1–18, 2022.

[2] **C. ZAKARIA**, A. Trivedi, E. Cecchet, M. Chee, P. Shenoy, and R. Balan, "Analyzing the impact of covid-19 control policies on campus occupancy and mobility via wifi sensing," ACM Transactions on Spatial Algorithms and Systems (TSAS), vol. 8, no. 3, 2022.

- [3] B. Chhaglani, **C. ZAKARIA**, A. Lechowicz, J. Gummesson, and P. Shenoy, “Flowsense: Monitoring airflow in building ventilation systems using audio sensing,” *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, vol. 6, no. 1, pp. 1–26, 2022.
- [4] **C. ZAKARIA**, Y. Lee, and R. Balan, “Detection of social identification in workgroups from a passively-sensed wifi infrastructure,” *Proceedings of the ACM on Human-Computer Interaction (CSCW)*, vol. 5, pp. 1–19, 2021.
- [5] A. Trivedi, **C. ZAKARIA**, R. Balan, A. Becker, G. Corey, and P. Shenoy, “Wifitrace: Network-based contact tracing for infectious diseases using passive wifi sensing,” *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, vol. 5, no. 1, pp. 1–26, 2021.
- [6] **C. ZAKARIA**, R. Balan, and Y. Lee, “Stressmon: Scalable detection of perceived stress and depression using passive sensing of changes in work routines and group interactions,” *Proceedings of the ACM on Human-Computer Interaction (CSCW)*, vol. 3, no. 37, pp. 1–29, 2019.
- [7] Q. Roy, **C. ZAKARIA**, S. Perrault, M. Nancel, W. Kim, A. Misra, and A. Cockburn, “A Comparative Study of Pointing Techniques for Eyewear Using a Simulated Pedestrian Environment,” *Proceedings of the IFIP Conference on Human-Computer Interaction (INTERACT)*, pp. 625–646, 2019.
- [8] **C. ZAKARIA**, R. C. Davis, and Z. Walker, “Seeking independent management of problem behavior: A proof-of-concept study with children and their teachers,” *Proceedings of the 15th International Conference on Interaction Design and Children (IDC)*, pp. 196–205, 2016.

In Revision/Review:

- [9] **C. ZAKARIA**, G. Yilmaz, P. Mammen, M. Chee, R. Balan, and P. Shenoy, “Sleepmore: Scalable detection of perceived stress and depression using passive sensing of changes in work routines and group interactions,” Under major revisions for *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, 2023.
- [10] A. Atrey, **C. ZAKARIA**, R. Balan, and P. Shenoy, “W4-groups: Modeling the who, what, when and where of group behavior via mobility sensing,” In review for the *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, 2023.
- [11] P. M. Mammen, **C. ZAKARIA**, T. Molom-Ochir, A. Trivedi, P. Shenoy, and R. Balan, “Wisleep: Scalable sleep monitoring and analytics using passive wifi sensing,” Under major revisions for the *ACM Transactions on Computing for Healthcare (HEALTH)*, 2023.

Demo/Poster/Workshop Paper:

- [12] **C. ZAKARIA**, K. Goh, Y. Lee, and R. Balan, “Exploratory Analysis of Individuals’ Mobility Patterns and Experienced Conflicts in Workgroups,” *Proceedings of the 5th ACM Workshop on Mobile Systems for Computational Social Science*, pp. 27–31, 2019.
- [13] K. Jayarajah, M. Radhakrishnan, and **C. ZAKARIA**, “Duplicate issue detection for the android open source project,” *Proceedings of the 5th International Workshop on Software Mining*, pp. 24–31, 2016.
- [14] **C. ZAKARIA**, and R. Davis, “Wearable application to manage problem behavior in children with neurodevelopmental disorders,” *Proceedings of the 14th Annual International Conference on Mobile Systems, Applications, and Services Companion*, pp. 127–127, 2016.
- [15] R. Davis, and **C. ZAKARIA**, “K-Sketch: Digital storytelling with animation sketches,” *International Conference on Interactive Digital Storytelling*, pp. 242–245, 2014.

AWARDS & MEDIA

BBC Worklife: The Campus as a Laboratory, Making an Impact	2019
Research@SMU: Monitoring and Addressing Stress	2019
Awarded Best User Experience and Best Project Management for final year capstone, SMU	2013
Awarded Best Project Award for final year capstone, TP	2007
Awarded Honor's List during third-year study, TP	2006
Awarded Directors's List during second-year study, TP	2005

SERVICE

COMSNETS: Publicity Co-Chair	2023
ACM CHI: Late Breaking Work Program Committee, Assoc. Chair	2021-2022
ACM IMWUT: Student Volunteer Co-chair	2018
ACM SIGGRAPH Asia: Student Volunteer Co-chair	2012
ACM SIGGRAPH Singapore Chapter: Secretary	2010-2013
 ACM IMWUT, CSCW, CHI: Active reviewer	 2018 - Present

TEACHING

Program Co-director UMass Amherst Summer Turing Program	2022
Teaching Assistantship SMU IS306 course	2015

REFERENCES

Dr. Prashant SHENOY

Distinguished Professor and Associate Dean
College of Information and Computer Sciences,
University of Massachusetts Amherst, USA
Email: shenoy@cs.umass.edu

Dr. Zachary WALKER

Head of Department
Psychology and Human Development,
Institute of Education,
University College London, UK
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Dr. Rajesh BALAN

Associate Professor (PhD Advisor)
School of Computing and Information Systems,
Singapore Management University, Singapore
Email: rajesh@smu.edu.sg