

CAMELLIA ZAKARIA

<https://nczakaria.github.io> ♦ camellia.zakaria@utoronto.ca

RESEARCH KEYWORDS

smart health, mobile and ubiquitous sensing, human computer interaction, applied machine learning

EXPERIENCE (RESEARCH/ACADEMIA)

Assistant Professor 2023 - Present

University of Toronto, Canada

Biostatistics Division & Institute of Health Policy, Management and Evaluation

Dalla Lana School of Public Health

Postdoctoral Research Fellow 2020 - 2023

University of Massachusetts Amherst (UMASS Amherst), USA

Manning College of Information and Computer Sciences

Research Engineer 2013 - 2014

Singapore Management University (SMU), Singapore

School of Computing and Information Systems

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

Human-Computer Interaction Institute

Visiting Scholar

2016 - 2017

Temasek Polytechnic, Singapore

School of Informatics

Diploma in Internet Computing

2004 - 2007

PUBLICATION

1. **C. ZAKARIA**, P. S. Foong, P. VS Pakianathan, and G. H. C. Koh, “Who are the Digital Proxies?: Results from a Survey on the Prevalence and Predictors of Digital Proxy Behavior in the United States,” *In review* for the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI), 2024.
2. B. Chhaglani, **C. ZAKARIA**, R. Peltier, J. Gummeson, and P. Shenoy, “AeroSense: Sensing Aerosol Emissions from Indoor Human Activities,” *In review* for the Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2024.
3. A. Atrey, **C. ZAKARIA**, R. Balan, and P. Shenoy, “W4-groups: Modeling the who, what, when and where of group behavior via mobility sensing,” Proceedings of the ACM on Human-Computer Interaction (CSCW), 2024. [To appear]

4. P. Mammen, **C. ZAKARIA**, and P. Shenoy, "SleepLess: Personalized Sleep Monitoring Using Smartphones and Semi-supervised Learning," 17th EAI International Conference on Pervasive Computing Technologies for Healthcare, 2023. [To appear]
5. **C. ZAKARIA**, G. Yilmaz, P. Mammen, M. Chee, R. Balan, and P. Shenoy, "SleepMore: Inferring Sleep Duration at Scale via Multi-Device WiFi Sensing," Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2023.
6. **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.
7. **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.
8. B. Chhagani, **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.
9. **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.
10. 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.
11. **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.
12. 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.
13. **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.

Demo/Poster/Workshop Paper:

1. A. Souza, M. Shenoy, and **C. ZAKARIA**, "Empowering User-Centered Carbon Management: Bridging Individual Preferences and Sociotechnical Advancements," *In review* for the 1st International Workshop on Cyber-Physical-Social Infrastructure Systems, 2023.
2. B. Chhagani, **C. ZAKARIA**, J. Gummesson, and P. Shenoy, "BreathEasy: Exploring the Potential of Acoustic Sensing for Healthy Indoor Environments," Proceedings of the 1st International Workshop on Advances in Environmental Sensing Systems for Smart Cities, pp. 25–30, 2023.
3. **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.

4. 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.
5. **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.
6. 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	<i>2019</i>
Research@SMU: Monitoring and Addressing Stress	<i>2019</i>
Awarded Best User Experience and Best Project Management for final year capstone, SMU	<i>2013</i>
Awarded Best Project Award for final year capstone, TP	<i>2007</i>
Awarded Honor’s List during third-year study, TP	<i>2006</i>
Awarded Directors’s List during second-year study, TP	<i>2005</i>

SERVICE

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

TEACHING

Program Co-director UMass Amherst Summer Turing Program	<i>2022-2023</i>
Teaching Assistantship SMU IS306 course	<i>2015</i>

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
Phone: +1 413 577 0850

Dr. Zachary WALKER

Head of Department
Psychology and Human Development,
Institute of Education,
University College London, UK
Email: zachary.walker@ucl.ac.uk
Phone: +44 (0)20 7679 2000

Dr. Rajesh BALAN

Associate Professor (PhD Advisor)
School of Computing and Information Systems,
Singapore Management University, Singapore
Email: rajesh@smu.edu.sg
Phone: +65 6828 0879