CAMELLIA ZAKARIA

https://nczakaria.github.io ◇ nurcamellia@umass.edu
+1 412-398-3005 (U.S.) ◇ +65 97116620 (S.G.)

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 *2020*
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**, G. Yilmaz, P. Mammen, M. Chee, R. Balan, and P. Shenoy, "SleepMore: Inferring Sleep Duration at Scale via Multi-Device WiFi Sensing," To appear in the Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2023.

[2] **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.

[3] **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.

[4] B. Chhaglani, **C. ZAKARIA**, A. Lechowicz, J. Gummeson, 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.

[5] **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.

[6] 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.

[7] **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.

[8] 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.

[9] **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:

[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: Inferring Sleep Duration at Scale 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 *2021-2023*
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
Email: zachary.walker@ucl.ac.uk

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