Camellia **Zakaria** (Ph.D.)
Postdoctoral Research Fellow, University of Massachusetts Amherst
nczakaria.github.io, linkedin.com/nczakaria

EDUCATION

JUL 2019	Doctorate (Ph.D.) in Information Systems
AUG 2014	School of Information Systems, Singapore Management University
JUL 2013	Bachelor's in Science (Information Systems)
AUG 2009	School of Information Systems, Singapore Management University
	Awards: Final year project – Best User Experience Award, Best Project Management Award
APR 2007	Diploma in Internet Computing with Merit
APR 2004	School of Informatics, Temasek Polytechnic
	Awards: Final Year Project – Best Project 2007, Honor's List AY 2006-2007, Director's List AY 2005-2006

EXPERIENCE

PRESENT	Postdoctoral Research Fellow
OCT 2020	College of Information & Computer Sciences, University of Massachusetts Amherst
	Working on developing AI technologies for large-scale behavioral health applications.
APR 2020	Postdoctoral Research Fellow
SEP 2019	School of Computing & Information Systems, Singapore Management University
	Worked on deploying a WiFi behavioral monitoring system in a local polytechnic to drive AI-mental health efforts for students.
JUL 2014	Research Engineer
JUL 2013	School of Computing & Information Systems, Singapore Management University
	Worked on a 2D-graphics sketch and animation application for novices and assist in research work related to this tool.
AUG 2009	Research Lab Officer
AUG 2007	Institute of Infocomm Research, Agency for Science, Technology and Research
	Worked on developing 3D graphics, animation and rendering to support research experiments on stereoscopic entertainment systems.

PUBLICATION

SleepMore: Sleep Prediction at Scale with Multi-Device WiFi Sensing
Zakaria, C., Yilmaz, G., Mammen, P., Parkman, B., Chee, M., Shenoy, P., & Balan, R.
MobiSys | Under review for Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services (2022)

Does Mode of Digital Contact Tracing Affect User Willingness to Share Information? A Quantitative Study

Zakaria, C., Foong, PS., Lim, CS., Pakianathan, V., Koh, G., & Perrault, S.

CHI | Under review for Proceedings of the ACM Conference on Human Factors in Computing Systems (2022)

WiSleep: Scalable Sleep Monitoring and Analytics Using Passive WiFi Sensing

Mammen, P., Zakaria, C., Molom-Ochir, T., Trivedi, A., Shenoy, P., & Balan, R.

HEALTH | Under review for ACM Transactions on Computing for Healthcare (2022)

Analyzing the Impact of COVID-19 Control Policies on Campus Occupancy and Mobility via Passive WiFi Sensing

Zakaria, C., Trivedi, A., Cecchet, E., Chee, M., Shenoy, P., & Balan, R.

TSAS | ACM Transactions on Spatial Algorithms and System. Special Issue on Contact Tracing (2022)

FlowSense: Monitoring Airflow in Building Ventilation Systems Using Audio Sensing

Chagglani, B., Zakaria, C., Lechowicz, A., Gummeson, J., & Shenoy, P.

IMWUT | Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (2022)

Detection of Students' Workgroup Identification using Passively Sensed WiFi Infrastructure

Zakaria, C., Balan, R., Lee, Y.

CSCW | Proceedings of the ACM on Human-Computer Interaction (2021)

WiFiTrace: Network-based Contact Tracing for Infectious DiseasesUsing Passive WiFi Sensing

Trivedi, A., Zakaria, C., Balan, R., Becker, A., Corey, G., & Shenoy, P.

IMWUT | Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (2021)

StressMon: Scalable Detection of Perceived Stress and Depression Using Passive Sensing of Changes in Work Routines and Group Interactions

Zakaria, C., Balan, R., Lee, Y.

CSCW | Proceedings of the ACM on Human-Computer Interaction (2019)

Exploratory Analysis of Individuals' Mobility Patterns and Experienced Conflicts in Workgroups

Zakaria, C., Goh, K., Lee, Y., & Balan, R.

MSCSS, MobiSys | Proceedings of the 5th ACM Workshop on Mobile Systems for Computational Social Science (2019)

A Comparative Study of Pointing Techniques for Eyewear Using a Simulated Pedestrian Environment

Roy, Q., Zakaria, C., Perrault, S., Nancel, M., Kim, W., Misra, A., & Cockburn, A.

INTERACT | 17th IFIP International Conference on Human-Computer Interaction (2019)

Seeking independent management of problem behavior: A proof-of-concept study with children and their teachers

Zakaria, C., Davis, R. C., & Walker, Z.

IDC | Proceedings of the 15th International Conference on Interaction Design and Children (2016)

Duplicate issue detection for the Android open-source project
Jayarajah, K., Radhakrishnan, M., & Zakaria, C.
SoftwareMining, KDD | Proceedings of the 5th International Workshop on Software Mining (2016)

K-Sketch: Digital Storytelling with Animation Sketches
Davis, R. C., & Zakaria, C.
ICIDS | Interactive storytelling: 7th International Conference on Interactive Digital Storytelling (2014)

Thesis: StressMon: Large Scale Detection of Stress and Depression in Campus Environment using Passive Coarse-grained Location Data
Zakaria, C.
2019

SELECTED PROJECTS

STRESSMON
StressMon (previously known as StressAssess@Campus) has undergone validation from two phases of longitudinal study between Spring'18 to Fall'18 since the making of this video. Future development of this work includes extending passive-sensing capabilities to understand measures of social interaction and well-being such as social identification and sleep.

WATCHME
WatchMe is a first PhD work, close to my heart. This work is built on sufficient progress in mobile sensing and HCI to assume that wearable devices can detect the physical movements and sounds in most problem behaviours. For example, I am using the accelerometer for hand gesture recognition and microphone for detecting vocalizations. I hope to continue this work on building an independent behaviour management tool that provides effective intervention to child users only when it is necessary.

TEACHING AND LEADERSHIP ROLES

AUG 2018   IS306: Interaction Design and Prototyping
School of Computing & Information Systems, Singapore Management University
Teaching assistant for HCI course.

DEC 2012   Student Volunteer Co-Chair
SIGGRAPH Asia, Student Volunteer Chair
Responsible for coordinating with conference programs and scheduling deployment of SV resources. Organized SV outreach program at Lucasfilm, SG.

AUG 2008   Lab coordinator for CGI Lab
Institute of Infocomm Research, Agency for Science, Technology and Research
Managed student artist interns in developing graphic work and producing animations with motion capture equipment

ORGANIZATIONS

2022   **CHI 2022 LBW Program**
Currently serving on Late Breaking Work (LBW) Program Committee

2021   **CHI 2021 LBW Program**
Served as Associate Chair for the Late Breaking Work (LBW) Program

2018   **UbiComp 2018**
Served as Co-Chair of the Student Volunteer Program

2012   **SIGGRAPH Asia 2012**
Served as Co-Chair of the Student Volunteer Program

2011   **Singapore ACM SIGGRAPH Association**
Served as Secretary from 2010 to 2013

SKILLS

Languages   Java, Python, JavaScript, R, SQL
App/Technologies   SPSS, AWS, Git, Android development, Adobe After Effects/Premier/Photoshop/Illustrator, Autodesk Maya/3DMax

Research   Machine Learning, Quantitative and Qualitative Analyses, User Study Protocols, Writing / Presentation

REFERENCES

Dr. Rajesh Balan
Associate Professor
School of Computing and
Information Systems, SMU
Email: rajesh@smu.edu.sg

Dr. Zachary Walker
Associate Professor
Institute of Education,
UCL
Email: zachary.walker@ucl.ac.uk

Dr. Youngki Lee
Associate Professor
Department of Computer Science
and Engineering, SNU
Email: youngkilee@snu.ac.kr