

ZHANNA SARSENBAYEVA

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<https://zhannina.github.io/>

EDUCATION

The University of Melbourne, Melbourne, Australia 2017 – 2020

PhD in Computer Science (Engineering)

Thesis: Quantifying the Effects of Situationally-Induced Impairments and Disabilities on Mobile Interaction

University of Oulu, Oulu, Finland 2014 – 2016

MSc in Computer Science and Engineering

Thesis grade - Excellent

University College London, London, UK 2007 – 2010

BSc in Computer Science (Hons.)

ACADEMIC APPOINTMENTS

Doreen Thomas Postdoctoral Fellow March 2020 – March 2023

The University of Melbourne, Melbourne, Australia

AWARDS AND RECOGNITION

2022–2023: Australia-Germany Joint Research Cooperation Scheme (24,800 AUD)

2021: CIS ECR grant (20,000 AUD), Faculty of Engineering and Information Technology, The University of Melbourne, Australia

2020: Doreen Thomas Postdoctoral Fellowship (298,375 AUD), The University of Melbourne, Australia

2019: Gaetano Borriello Outstanding Student Award for outstanding research contributions and service to the field of ubiquitous and pervasive computing, UbiComp'19, London, UK

2019: Google PhD Fellowship in Human-Computer Interaction (15,000 AUD)

2019: Diane Lemaire Scholarship, Faculty of Engineering and Information Technology, The University of Melbourne (7,000 AUD)

2018: Best Presentation Award – Honourable Mention, Doctoral Colloquium, UbiComp'18, Singapore

2018: UbiComp'18 Travel Grant, Singapore

2018: Google PhD Travel Scholarship

2017: SIGCHI Best of OzCHI Honourable Mention Award (top 5% of papers), OzCHI 2017, Brisbane, Australia

2017: Google PhD Travel Scholarship

2017: Melbourne Research Scholarship, The University of Melbourne

2017: Best Poster Award – Honourable Mention, Doctoral Colloquium, The University of Melbourne, Australia

2016: Best Project Award, International UBI Summer School 2016, Oulu, Finland

2015: Best Presentation Award, International UBI Summer School 2015, Oulu, Finland

TEACHING

The University of Melbourne

- 2022** Media Computation (COMP10003, Lecturer, 67%)
- 2021** Media Computation (COMP10003, Lecturer, 50%)
- 2019** Fundamentals of Interaction Design (INFO10003, Tutor)
- 2019** Designing Novel Interactions (INFO90003, Tutor)
- 2018** Fundamentals of Interaction Design (INFO10003, Tutor)
- 2017** Fundamentals of Interaction Design (INFO10003, Tutor)
- 2017** Graphics and Interaction (COMP30019, Tutor)

ADDITIONAL WORK EXPERIENCE

Research Assistant Feb 2019 – Oct 2019
The University of Melbourne, Melbourne, Australia

Android Developer 2016 – 2017
<https://intellection.kz/>
Almaty, Kazakhstan

Research Assistant Sep 2015 – Dec 2016
Center for Ubiquitous Computing
University of Oulu, Finland

Teaching Assistant 2011 – 2014
Nazarbayev University, Astana, Kazakhstan

Technical Consultant 2010 – 2014
Medtronic, Almaty, Kazakhstan

EXTRACURRICULAR ACTIVITIES

2019: Melbourne Knowledge Week, Melbourne, Australia (Demo: Emotion Detection Using Smartphones)

2018: Secretary at Computer and Information Systems Research Students Organisation (CIS-GReS), The University of Melbourne, Australia

2017: The University of Melbourne Open Day, Australia (Demo: Emotion Detection Using Smartphones)

ACADEMIC SERVICE

2021: Papers Chair, OzCHI'21, Australia

2021: AC for CHI, MobileHCI

2020: Video Previews Co-Chair, CHI'20, Hawaii, USA

2020: External Reviewer for CHI, MobileHCI, IMWUT

2019: Co-organiser, Workshop on “Addressing the Challenges of Situationally-Induced Impairments and Disabilities in Mobile Interaction”, CHI'19, Glasgow, UK

2019: Video Previews Co-Chair, CHI'19, Glasgow, UK

2019: External Reviewer for IJHCS, IMWUT

2018: Co-organiser, Workshop on “Ubiquitous Mobile Sensing: Behaviour, Mood, and Environment”, UbiComp'18, Singapore

- 2018:** Student Volunteer, UbiComp'18, Singapore
- 2018:** Student Volunteer Chair, OzCHI'18, Melbourne, Australia
- 2018:** Student Design Challenge Chair, OzCHI'18, Melbourne, Australia
- 2018:** External Reviewer for IMWUT, MobileHCI, OzCHI
- 2017:** External Reviewer for IMWUT, OzCHI
- 2017:** Student Volunteer, OzCHI 2017, Brisbane, Australia
- 2016:** Student Volunteer, International UBI Summer School 2016, Oulu, Finland

SUPERVISED MSC THESES

2021: Yifan Cai (MSc, Co-supervisor) **2020:** Sicheng Sun (MSc, Co-supervisor) **2020:** Chuangang Xia (MSc, Primary supervisor) **2020:** Eylul Ertay and Hao Huang (MSc, Co-supervisor) **2020:** Shu Yan (MSc, Co-supervisor (Tech)) **2018:** Silan Li (MSc, Co-supervisor (Tech)) **2018:** Jia Liu (MSc, Co-supervisor (Tech))

REFERENCES

- Prof. Vassilis Kostakos**, Professor in HCI, The University of Melbourne, Australia,
email: vassilis.kostakos@unimelb.edu.au
- Dr. Jorge Goncalves**, Senior Lecturer in HCI, The University of Melbourne, Australia,
email: jorge.goncalves@unimelb.edu.au
- Prof. Jacob O. Wobbrock**, Professor in HCI, The University of Washington, USA,
email: wobbrock@uw.edu
- A/Prof. Simo Hosio**, Associate Professor, the University of Oulu, Finland,
email: simo@simohosio.com

INVITED TALKS

- 2021:** "Accessibility Research in HCI", Seminar series at the School of Computing and Information Systems, The University of Melbourne, Australia
- 2019:** "Situational Impairments in Mobile Interaction", The University of Dundee, UK
- 2019:** "Situational Impairments in Mobile Interaction", The University of Melbourne, Australia
- 2018:** "Enhancing Mobile Interaction during Situational Impairments", The University of Manchester, UK

PUBLICATIONS

2021

- C. Wang, W. Jiang, K. Yang, D. Yu, J. Newn, Z. Sarsenbayeva, J. Goncalves, V. Kostakos (2021). A Systematic Review of Electronic Monitoring Systems for Hand Hygiene. *Journal of Medical Internet Research* (**IF: 5.43**), in press.
- E. Ertay, H. Huang, Z. Sarsenbayeva, T. Dingler (2021). Challenges of Emotion Detection Using Facial Expressions and Emotion Visualisation in Remote Communication. *Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp21 Adjunct)*, 230-236.
- K. Yang, C. Wang, Y. Gu, Z. Sarsenbayeva, B. Tag, T. Dingler, G. Wadley, J. Goncalves (2021). Behavioral and Physiological Signals-Based Deep Multimodal Approach for Mobile Emotion Recognition. *IEEE Transactions on Affective Computing* (**IF: 10.506**), doi: 10.1109/TAFFC.2021.3100868.

W. Jiang, Z. Sarsenbayeva, N. van Berkel, C. Wang, D. Yu, J. Wei, J. Goncalves, V. Kostakos (2021). User Trust in Assisted Decision-Making Using Miniaturized Near-Infrared Spectroscopy. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2021 (**CHI21, CORE A***), to appear.

2020

K. Yang, C. Wang, Z. Sarsenbayeva, B. Tag, T. Dingler, G. Wadley, J. Goncalves (2020). Benchmarking Commercial Emotion-Detection Systems using Realistic Distortions of Facial Image Datasets. The Visual Computer (**IF: 1.456**), 1:20.

Z. Sarsenbayeva, G. Marini, N. van Berkel, C. Luo, W. Jiang, K. Yang, G. Wadley, T. Dingler, V. Kostakos, J. Goncalves (2020). Does Smartphone Use Drive our Emotions or vice versa? A Causal Analysis. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2020 (**CHI'20, CORE A***), 193:1-193:14.

D. Hettiachchi, Z. Sarsenbayeva, F. Allison, N. van Berkel, T. Dingler, G. Marini, V. Kostakos, J. Goncalves (2020). “Hi! I am the Crowd Tasker” Crowdsourcing through Digital Voice Assistants. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2020 (**CHI'20, CORE A***), 36:1-36:15.

C. Wang, Z. Sarsenbayeva, X. Chen, T. Dingler, J. Goncalves, V. Kostakos (2020). Accurate Measurement of Hand-Wash Quality Using Sensor Armbands: Instrument Validation Study. JMIR mHealth and uHealth (**IF: 4.31**), 8(3), e17001:1-e17001:18.

N. van Berkel, J. Goncalves, S. Hosio, Z. Sarsenbayeva, E. Velloso, V. Kostakos (2020). Overcoming Compliance Bias in Self-Report Studies: A Cross-Study Analysis. International Journal of Human-Computer Studies (**IF: 3.163**), 134, 1-12.

W. Jiang, G. Marini, N. van Berkel, Z. Sarsenbayeva, Z. Tan, C. Luo, X. He, T. Dingler, J. Goncalves, Y. Kawahara, V. Kostakos (2019). Probing Sucrose Contents in Everyday Drinks Using Miniaturized Near-Infrared Spectroscopy Scanners. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT, UbiComp'20, CORE A***), 3(4), 136:1-136:25.

Z. Sarsenbayeva, B. Tag, S. Yan, V. Kostakos, J. Goncalves (2020). Using Video Games to Regulate Emotion. In Proceedings of the 32nd Australian Conference on Human-Computer Interaction (OzCHI'20), 755759.

G.W. Tigwell, Z. Sarsenbayeva, B.M. Gorman, D.R. Flatla, J. Goncalves, Y. Yesilada, J.O. Wobbrock (2020). Future Directions for Situationally Induced Impairments and Disabilities Research. ACM Interactions Blog.

2019

Z. Sarsenbayeva, N. van Berkel, D. Hettiachchi, W. Jiang, T. Dingler, E. Velloso, V. Kostakos, J. Goncalves (2019). Measuring the Effects of Stress on Mobile Interaction. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT, UbiComp'19, CORE A***), 3(1), 24:1-24:18.

Z. Sarsenbayeva, N. van Berkel, W. Jiang, D. Hettiachchi, V. Kostakos, J. Goncalves (2019). Effect of Ambient Light on Mobile Interaction. Proceedings of the 17th IFIP TC.13 International Conference on Human-Computer Interaction (**INTERACT'19, CORE A**), Lecture Notes in Computer Science, vol 11748. Springer, Cham.

Z. Sarsenbayeva, V. Kostakos, J. Goncalves (2019). Situationally-Induced Impairments and Disabilities Research. In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI'19 EA).

C. Wang, Z. Sarsenbayeva, C. Luo, J. Goncalves, V. Kostakos (2019). Improving Wearable Sensor Data Quality Using Context Markers. Adjunct Proceedings of the 2019 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'19 Adjunct), 598-601.

G.W. Tigwell, Z. Sarsenbayeva, B.M. Gorman, D.R. Flatla, J. Goncalves, Y. Yesilada, J.O. Wobbrock (2019). Addressing the Challenges of Situationally-Induced Impairments and Disabilities in Mobile Interaction. In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI'19 EA).

C. Luo, A. Visuri, S. Klakegg, N. van Berkel, Z. Sarsenbayeva, A. Möttönen, J. Goncalves, T. Anagnostopoulos, D. Ferreira, H. Flores, E. Velloso, V. Kostakos (2019). Energy-Efficient Prediction of Smartphone Unlocking, Personal and Ubiquitous Computing (**IF: 2.395**), 23(1), 159-177.

2018

Z. Sarsenbayeva, N. van Berkel, E. Velloso, V. Kostakos, J. Goncalves (2018). Effect of Distinct Ambient Noise Types on Mobile Interaction. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT, UbiComp'18, CORE A***), 2(2), 82:1-82:23.

🏆 S. Klakegg, J. Goncalves, C. Luo, A. Visuri, A. Popov, N. van Berkel, Z. Sarsenbayeva, V. Kostakos, S. Hosio, S. Savage, A. Bykov, I. Meglinski, D. Ferreira (2018). Assisted Medication Management in Elderly Care Using Miniaturised Near-Infrared Spectroscopy. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT, UbiComp'18, CORE A***), 2(2), 69:1-69:24. Best Paper Award

🏆 Zhanna Sarsenbayeva. Situational Impairments during Mobile Interaction. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT, UbiComp'18 Adjunct) 1(1), 11:498-11:503. Best Presentation – Honourable Mention Award

O. Matthews, Z. Sarsenbayeva, W. Jiang, J. Newn, E. Velloso, S. Clinch, J. Goncalves (2018). Inferring the Mood of a Community From Their Walking Speed: A Preliminary Study. Adjunct Proceedings of the 2018 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'18 Adjunct), 1144-1149.

W. Jiang, G. Marini, N. van Berkel, Z. Sarsenbayeva, C. Luo, X. He, T. Dingler, Y. Kawahara, V. Kostakos. A Mobile Scanner for Probing Liquid Samples in Everyday Settings. Proceedings of the 2018 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'18 Adjunct), 1172-1177.

A. Visuri, K. Asare, E. Kuosmanen, Y. Nishiyama, D. Ferreira, Z. Sarsenbayeva, J. Goncalves, N. van Berkel, G. Wadley, V. Kostakos, S. Clinch, O. Matthews, S. Harper, A. Jenkins, S. Snow, m. c. schraefel (2018). Ubiquitous Mobile Sensing: Behaviour, Mood, and Environment. Adjunct Proceedings of the 2018 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'18 Adjunct), 1140-1143.

S. Mayer, L. Lischke, J. E. Grønbaek, Z. Sarsenbayeva, J. Vogelsang, P. Woźniak, N. Henze, G. Jacucci. Pac-Many: Movement Behavior when Playing Collaborative and Competitive Games on Large Displays. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2018 (**CHI'18, CORE A***), 539:1-539:10.

2017

🏆 Z. Sarsenbayeva, N. van Berkel, C. Luo, V. Kostakos, J. Goncalves (2017). Challenges of Situational Impairments during Interaction with Mobile Devices. Proceedings of the 29th Australian Conference on Human-Computer Interaction (OzCHI'17), 477-481. Best Paper – Honourable Mention Award

Z. Sarsenbayeva, N. van Berkel, A. Visuri, S. Rissanen, H. Rintamaki, V. Kostakos, J. Goncalves (2017). Sensing Cold-Induced Situational Impairments in Mobile Interaction using Battery Temperature. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT, UbiComp'17, CORE A***), 1(3), 98:1-98:10.

Z. Sarsenbayeva, D. Ferreira, N. van Berkel, C. Luo, M. Vaisanen, V. Kostakos, J. Goncalves (2017). Vision-Based Happiness Inference: A Feasibility Case-Study. Adjunct Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'17 Adjunct), 494-499.

A. Visuri, Z. Sarsenbayeva, N. van Berkel, J. Goncalves, R. Rawassizadeh, V. Kostakos, D. Ferreira (2017). Quantifying Sources and Types of Smartwatch Usage Sessions. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2017 (**CHI'17, CORE A***), 3569-3581.

J. Goncalves, Z. Sarsenbayeva, N. van Berkel, C. Luo, S. Hosio, S. Rissanen, H. Rintamaki, V. Kostakos (2017). Tapping Task Performance on Smartphones in Cold Temperature. Interacting with Computers (**IF: 1.036**), 29(3), 355-367.

2016

Z. Sarsenbayeva, J. Goncalves, J. Garcia, S. Klakegg, S. Rissanen, H. Rintamaki, J. Hannu, V. Kostakos (2016). Situational Impairments to Mobile Interaction in Cold Environments. In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp'16, CORE A***), 85-96.

A. Visuri, Z. Sarsenbayeva, J. Goncalves, E. Karapanos, S. Jones (2016). Impact of Mood Changes on Application Selection. In Adjunct Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'16 Adjunct), 535-540.