HERMAN SAKSONO, PH.D.

Assistant Professor, Northeastern University
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EMPLOYMENTS

Northeastern University, Boston, U.S.
Bouvé College of Health Sciences and Khoury College of Computer Sciences
Assistant Professor — Sept 2022 - Present

Harvard University, Cambridge, U.S.
Center for Research on Computation and Society
Postdoctoral Research Fellow — 2020 - 2022

Universitas Gadjah Mada, Indonesia
E-Learning Coordinator — 2008 - 2012

EDUCATION

Northeastern University, Boston, U.S.
Ph.D. in Computer Science (Khoury College of Computer Sciences) — 2020
Thesis: *A Social Cognition Framework for Interpersonal Informatics in Families*
Committee: Andrea G. Parker, Stephen Intille, Magy Seif El-Nasr, and Sean Munson (UW).

M.S. in Computer Science (Khoury College of Computer Sciences) with Fulbright scholarship — 2014

Universitas Gadjah Mada, Indonesia — 2007
B.Eng. in Electrical Engineering (College of Engineering)

RESEARCH INTEREST

My research is in the fields of **Human-Computer Interaction** (HCI), **Digital Health Equity**, and **Health Informatics**. I investigate how to design technologies that help address health disparities. I examine how health technologies can catalyze social interactions that help people to manage their health and wellbeing as collective efforts. I have been conducting the entire user-centered design process by designing, building, and evaluating innovative health technologies in collaboration with local community partners.

PEER-REVIEWED, ARCHIVAL CONFERENCE ARTICLES

Note: In computer and information sciences, conferences are top-tier publishing venues, with selectivity and impact often exceeding that of journals. See: http://portal.acm.org/citation.cfm?id=1743546.1743569.

[1] **Herman Saksono**, Carmen Castaneda-Sceppa, Jessica A. Hoffman, Magy Seif El-Nasr, Andrea G. Parker. 2021. StoryMap: Using Social Modeling and Self-Modeling to Support Physical Activity Among Families of Low-SES Backgrounds. In *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2021)*. ACM, New York, NY, USA, 19 pages. [26% acceptance rate]. **Honorable Mention, Best Paper Award (top 5% of submissions)**

[2] **Herman Saksono**, Carmen Castaneda-Sceppa, Jessica Hoffman, Vivien Morris, Magy Seif El-Nasr, Andrea G. Parker. 2020. Storywell: Designing for Family Fitness App Motivation by Using Social Rewards and Reflection. In *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2020)*, April 25-30, 2020, Honolulu, Hawaii, US. ACM, New York, NY, USA, 13 pages. [24.3% acceptance rate]

[3] **Herman Saksono**, Carmen Castaneda-Sceppa, Jessica Hoffman, Magy Seif El-Nasr, Vivien Morris, Andrea G. Parker. 2019. Social Reflections on Fitness Tracking Data: A Study with Families in Low-SES Neighborhoods. In *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019)*, May 4-9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA, 14 pages. [23.8% acceptance rate]

[4] **Herman Saksono**, Carmen Castaneda-Sceppa, Jessica Hoffman, Magy Seif El-Nasr, Vivien Morris, Andrea G. Parker. 2018. Family Health Promotion in Low-SES Neighborhoods: A Two-Month Study of Wearable Activity Tracking. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. ACM, New York, NY, USA, Paper 309, 13 pages. [26% acceptance rate]

[5] Elizabeth Stowell, Mercedes C. Lyson, **Herman Saksono**, Reneé C. Wurth, Holly Jimison, Misha Pavel, Andrea G. Parker. 2018. Designing and Evaluating mHealth Interventions for Vulnerable Populations: A Systematic Review. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. ACM, New York, NY, USA, Paper 15, 17 pages. [26% acceptance rate]. **Honorable Mention, Best Paper Award (top 5% of submissions)**

[6] **Herman Saksono**, Andrea G. Parker. 2017. Reflective Informatics Through Family Storytelling: Self-Discovering Physical Activity Predictors. *In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. ACM, New York, NY, USA, 5232-5244. [25% acceptance rate]

[7] Farnaz Irannejad Bisafar, **Herman Saksono**, and Andrea G. Parker. 2016. Youth Advocacy in SNAs: Challenges for Addressing Health Disparities. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16)*. ACM, New York, NY, USA, 3620-3624. [23% acceptance rate]

[8] **Herman Saksono**, Ashwini Ranade, Geeta Kamarthi, Carmen Castaneda-Sceppa, Jessica Hoffman, Andrea G. Parker. 2015. Spaceship Launch: Designing a Collaborative Exergame for Families. In *Proceedings of the 18th ACM Conference of Computer-Supported Cooperative Work and Social Computing (CSCW '15)*. ACM, New York, NY, USA, 1776-1787. [28% acceptance rate]

JOURNAL ARTICLE

[1] Xin Yao Lin, **Herman Saksono**, Elizabeth Stowell, Margie Lachman, Carmen Castaneda-Sceppa, Andrea G. Parker. 2020. Go&Grow: An Evaluation of a Pervasive Social Exergame for Caregivers of Loved Ones with Dementia. In *Proc. ACM Hum.-Comput. Interact.* 4, CSCW2, Article 151 (October 2020), 28 pages.

BOOK CHAPTERS

[1] **Herman Saksono**. 2022. User-Centered Design in AI for Social Impact. In *AI for Social Impact*. Milind Tambe, Fei Fang, and Bryan Wilder (eds.). `https://ai4sibook.org/`

[2] Andrea G. Parker, **Herman Saksono**, Jessica A. Hoffman, and Carmen Castaneda-Sceppa. 2017. A Community Health Orientation for Wellness Technology Design & Delivery. In *Designing Healthcare That Works: A Sociotechnical Approach*. Mark Ackerman, Sean Goggins, Thomas Herrmann, Michael Prilla and Christian Stary (eds.). Academic Press, Elsevier Inc. 59-76. ISBN 9780128125830

POSITION PAPERS

[1] **Herman Saksono**. 2022. Just-in-Time Adaptive Reflections for Supporting Physical Activity. In *Grand Challenges for Personal Informatics and AI* at *CHI 2022*.

[2] Renee Wurth and **Herman Saksono**. 2021. Community power could boost confidence in vaccination programmes. *Nature*. 2021 Jan; 589(7841):198. doi: 10.1038/d41586-021-00049-4.

[3] **Herman Saksono**. 2021. An Online Health Community for Preventive Health Behavior. In *The Future of Research on Online Health Communities: Discussing Membership, Structure, and Support* at *CSCW 2021*.

[4] **Herman Saksono**. 2021. Algorithmic Patient Matching in Peer Support Systems for Hospital Inpatients. In *Realizing AI in Healthcare: Challenges Appearing in the Wild* at *CHI 2021*.

[5] **Herman Saksono**. 2021. TRANSFORMATIVE-FAIR AI for Addressing the Societal Origins of Marginalization. In *Artificially Intelligent Technology for the Margins: A Multidisciplinary Design Agenda* at *CHI 2021*.

[6] **Herman Saksono**. 2020. Asset-Based Insights on Designing Fitness Promotion Techs in Boston's Low-SES Neighborhoods. In *From Needs to Strengths: Operationalizing an Assets-Based Design of Technology* at *CSCW 2020*.

[7] **Herman Saksono**, Teresa O'Leary, Andrea G. Parker. 2020. Physical Activity Technology for Supporting Mental Health in Families. In *Technology Ecosystems: Rethinking Resources for Mental Health* at *CHI 2020*.

[8] Farnaz Irannejad Bisafar and **Herman Saksono**. 2019. Health Advocacy on Social Networking Applications: Co-Designing With Youth of Ethnic and Racial Minority. 2019. *Social Technologies for Digital Wellbeing Among Marginalized Communities* at *CSCW 2019*.

[9] **Herman Saksono** and Andrea G. Parker. 2019. Designing for Psychological Needs in Fitness Tracking: Supporting Engagement and Adherence. *WISH'19 Original Research Paper, Workgroup on Interactive System in Health* at *CHI 2019*.

[10] **Herman Saksono** and Andrea G. Parker. Ecological Factors of Long-Term Family Physical Activity Tracking. 2018. *Workshop on Next Steps Towards Long-Term Self Tracking* at *CHI 2018*.

[11] **Herman Saksono** and Andrea G. Parker. 2017. Storytelling as Space for Reflection on Parent and Child's Physical Activity Data. *Quantified Data and Social Relationships Workshop* at *CHI 2017*.

[12] Elizabeth Stowell, Mercedes C. Lyson, Reneé C. Wurth, **Herman Saksono**, Holly Jimison, Misha Pavel, Andrea G. Parker. 2016. mHealth Research in Vulnerable Populations: A Systematic Review. *WISH16́ Poster, Workgroup on Interactive System in Health* at *CHI 2016*.

[13] **Herman Saksono** and Andrea G. Parker. 2015. Health data-driven storytelling for physical activity promotion in families. *Moving Beyond e-Health and the Quantified Self* at *CSCW 2015*.

ABSTRACTS PRESENTED AS POSTERS

[1] **Herman Saksono**, Andrea G. Parker. Storytelling as a Platform for Health Sensor Data Reflection and Physical Activity Promotion in a Family Setting. 2016. *Forum on Population Health Equity. Harvard T.H. Chan School of Public Health.*

[2] Elizabeth Stowell, Mercedes Lyson, Rene Wurth, **Herman Saksono**, Holly Jimison, Misha Pavel, Andrea G. Parker. mHealth Research in Vulnerable Populations: A Systematic Review. 2016. *Forum on Population Health Equity. Harvard T.H. Chan School of Public Health.*

[3] Ashwini Ranade, **Herman Saksono**, Andrea Grimes Parker, et al. Community-driven technology intervention promoting physical activity in a low-income neighborhood. 2014. *142nd APHA Annual Meeting.*

INVITED TALKS AND TEACHING

Yale University, U.S. March 2022
User-Centered Design of Digital Health Tools (BIS/SBS 640).
Guest lecture for Dr. Terika McCall
Title: "*User-Centered Design for Enhancing Health Equity*"

Columbia University, Department of Biomedical Informatics, U.S. March 2022
Title: "*Social Health Informatics*"

University of Washington, U.S. September 2021
Clinical Informatics & Patient-Centered Technologies Keynote
Title: "*The Sociality of Personal Health Informatics*"

University of Washington, U.S. February 2021
DUB Seminar
Title: "*Interpersonal Health Informatics: The Characteristics of Social Personal Informatics*"

Harvard University, Cambridge, U.S.
Design of Useful and Usable Interactive Systems (CS 179, Undergraduate). Spring 2021
Guest lecture for Dr. Elena Glassman
Title: *"Designing Techs for Countering The Societal Origins of Injustices"*

AI for Social Impact (CS 288, Graduate) Spring 2021
Guest lecture for Dr. Milind Tambe.
Title: *"Designing Techs for Countering The Societal Origins of Health Disparities"*

Northeastern University, Boston, U.S.
Theory and Methods in HCI (Ph.D. CS core course, 8 students) Fall 2019
Guest lecture for Dr. Magy Seif El-Nasr. Title: *"Self-Determination Theory and Motivation"*

Human Computer Interaction (Undergraduate CS, 49 students) Fall 2019
Guest lecture for Stefán Ólafsson. Title: *"Envisioning and Paper Prototyping"*

Society, Behavior and Health (Public health graduate course, 35 students) Fall 2019
Guest lecture for Dr. Chris Chanyasulkit. Title: *"Health Technology Design"*

Teaching Assistant for Program Design Paradigm *CS 5010* Spring 2013
Instructor: Dr. Mitchell Wand

VOLUNTEER WORK

Program Committee 2020-2022

· ACM CHI Papers, Associate Chair (2021-2022)
· ACM CSCW Papers (PACM HCI Journal), Associate Chair (2020-2023)
· Frontiers In Digital Health: Human Factors and Digital Health, Guest Associate Editor (2021-2022)

· ACM CHI Late-Breaking Work, Associate Chair (2020)
· Pervasive Health, Program Committee member (2020)

Paper Submissions Reviewer 2016-2021

· ACM CHI Paper (2017-2021) and Late-Breaking Work (2016-2021)
· ACM CSCW Paper (2018-2022)
· IEEE Vis (2022)
· ACM UbiComp/IMWUT (2017, 2020, 2021, 2022)
· ACM Transactions on Computer-Human Interaction (TOCHI) (2019-2021)
· International Journal of Medical Informatics (2021)
· International Journal of Human - Computer Studies IJHCS (2021-2022)
· IEEE Transactions on Games (2019-2020)
· ACM CHI Play (2018, 2022)
· ACM DIS (2018)

Seminar, Symposium, and Workshop Organizer 2019-2021

· **AI for Social Impact Seminar Series, Harvard University** Spring 2021
Co-chair with Arpita Biswas, Ph.D.

· **WISH 2020 - The Workgroup on Interactive Systems in Health** Nov 2020
Technology & Logistics Co-chair

· **Social Technologies for Digital Wellbeing Among Marginalized Communities** Nov 2019
Michael A. Devito, Ashley Marie Walker, Jeremy Birnholtz, Kathryn Ringland, Kathryn Macapagal, Ashley Kraus, Sean Munson, Calvin Liang, **Herman Saksono**. 2019. Social Technologies for Digital Wellbeing Among Marginalized Communities. *CSCW 2019*. November 10, 2019. Austin, TX. Co-organizer.

AWARDS AND HONORS

Honorable Mention Paper Awards, ACM CHI 2018, 2021
Honored to exceptional articles in CHI publications (5% of submissions).

Dean's Fellowship, Northeastern University 2014 - 2015
Offered to the most outstanding Ph.D. students who demonstrate exceptional academic promise.

Fulbright M.S. Scholarship, U.S. Department of State 2012-2014
International educational exchange program sponsored by the U.S. government.

Google's Internet at Liberty conference fellow, Google 2012
Conference to bring together NGOs, academics, governments and corporations focused on the many issues of internet liberty and creative ways to address these challenges.

STUDENTS SUPERVISED

Master's Students, Research Assistants

· Arushi Singh (*MFA in Information Design and Visualization, Northeastern University*)

· Renee Black (*Public Health, Northeastern University*)
· Krrish Mittal (*Computer Science, Northeastern University*)
· Amritansh Tripathi (*Computer Science, Northeastern University*)
· Syed Aman Alam (*Computer Science, Northeastern University*)
· Raj Kukadia (*Computer Science, Northeastern University*)

Undergraduate Students, Capstones

· Amanda Carreiro (*Health Sciences, capstone, Northeastern University*)
· Johnothon Smileye (*Health Sciences, capstone, Northeastern University*)
· Chloe Eng (*Health Sciences, capstone, Northeastern University*)

Undergraduate Students, Research Assistants

· Joyce Tian (*Applied Mathematics, Harvard University*)
· Nur Selin Akbulut (*Health Sciences, Northeastern University*)
· Sarina Dass (*Data Science, Northeastern University*)
· Shreya Singh (*Computer Science, Northeastern University*)
· Lilian Ngweta (*CRA-W DREU visiting undergrad from Arizona State University*)
· Bahar Haji-Sheikhi (*Computer Science, Northeastern University*)
· Parul Sharma (*Computer Science, Northeastern University*)

PROJECTS

Unemployment Visualization among Minoritized Populations 2020-
Project Lead, Harvard University
Collaborators: Shahin Jabbari (Drexel University), Hila Bernstein, Ronald Marlow (ABCD)

· Led the the requirement gathering and inter-institution agreements.
· Led the design and development of the visualization tool.

Experiential Learning Systems for Promoting Wellness in Low-Income Families 2016 - 2020
Graduate Research Assistant, Northeastern University. Grant: NSF CHS #1618406
PI: Andrea G. Parker, Co-PIs: Jessica Hoffman, Carmen Sceppa, Magy Seif El-Nasr.

· Led the user-centered design processes with the PIs.
· Conducted and qualitatively analyzed semi-structured interviews with adult caregivers and children.
· Led the design and the development of a mobile app prototype using Android (Java), Firebase, and Python.
· Mentored computer science and health science students.

Digital Support for Alzheimers Disease Caregivers 2016-2019
Graduate Research Assistant, Northeastern University
PI: Margie Lachman (Brandeis U.), NEU Site PI: Carmen Sceppa, Co-I: Andrea G. Parker

· Led the development of a mobile app prototype using Android (Java).

Systematic Review on mHealth Interventions for Vulnerable Populations 2015 - 2018
Graduate Research Assistant, Northeastern University. Grant: AETNA Foundation.
PI: Andrea G. Parker, Co-PIs: Holly Jimison, Misha Pavel.

· Co-conducted data extraction and quality assessment on a total of 83 research papers

Community-Driven Technologies for Physical Activity Promotion in Families 2013-2014
Graduate Research Assistant, Northeastern University. Grant: Northeastern University Tier 1
Lead Co-PI: Andrea G. Parker; Co-PIs: Jessica Hoffman & Carmen Sceppa.

· Developed a web-based collaborative exercise game using Fitbit API, PHP, and JavaScript.
· Conducted interviews, focus groups, and participatory design workshops with adult caregivers and children.
· Conducted inductive qualitative analysis on the interview data.