

Hee Jeong Han

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Education

Pennsylvania State University

Doctor of Philosophy in Informatics

- Advisor: Saeed Abdullah

University Park, Pennsylvania, U.S.A

Aug. 2020 - Present

University of California, Irvine

Master of Science in Computer Science

- Advisor: Nikil Dutt
- Thesis title: Objective Stress Monitoring based on Wearable Sensors in Everyday Settings

Irvine, California, U.S.A

Sep. 2017 - Jun. 2019

Ewha Womans University

Bachelor of Science in Computer Science and Engineering

- Advisor: Dong Sub Cho
- ABEEK (Accreditation Board for Engineering Education of Korea)

Seoul, Korea

Mar. 2012 - Feb. 2017

Publications

[Under Review] **Hee Jeong Han**, Sanjana Mendu, Beth K Jaworski, Jason E Owen, and Saeed Abdullah, "Assessing Acceptance and Feasibility of a Conversational Agent to Support Individuals Living with Post-traumatic Stress Disorder," in *Digital Health* 2024

Hee Jeong Han, Sanjana Mendu, Beth K Jaworski, Jason E Owen, and Saeed Abdullah, "Preliminary Evaluation of a Conversational Agent to Support Self-management of Individuals Living with PTSD: An Interview Study with Clinical Experts," in *JMIR Formative Research*, 7, e45894 2023

Hee Jeong Han, Suhas BN, Ling Qiu, and Saeed Abdullah, "Automatic Classification of Dementia using Text and Speech data," in *Multimodal AI in Healthcare*, pp. 399-407. Springer, Cham 2023

Hee Jeong Han, Sanjana Mendu, Beth K Jaworski, Jason E Owen, and Saeed Abdullah, "PTSDialogue: Designing a Conversational Agent to Support Individuals with Post- Traumatic Stress Disorder," in *Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers (UbiComp '21)* 2021

Hee Jeong Han, Sina Labbaf, Jessica L. Borelli, Nikil Dutt, and Amir M. Rahmani, "Objective stress monitoring based on wearable sensors in everyday settings," in *Journal of Medical Engineering & Technology* 44, no. 4: 177-189, 2020

Hee Jeong Han, Miso Kwon, You Hyun Kang, Dong Sub Cho, "Pedestrian Management System for Real-time Pedestrian Detection," in *Proceedings of Korea Multimedia Society Conference of the Spring*, 2016

- Best Paper Award

Hee Jeong Han, You Hyun Kang, Miso Kwon, Dong Sub Cho, "Pedestrian Pattern Classification For the Pedestrian Counting Systems using Key Matrix," in *Proceedings of Korea Computer Congress*, 2016

- Best Paper Award

Hee Jeong Han, You Hyun Kang, Miso Kwon, Dong Sub Cho, "Pedestrian Safety Management Systems based on Multiple-input enabled F-pad," in *Proceedings of The Korean Institute of Electrical Engineers(KIEE) Summer Conference*, 2016

You Hyun Kang, Miso Kwon, **Hee Jeong Han**, Dong Sub Cho, "A System on the Formation of Pedestrian Pattern for Pedestrian Volume Analysis," in *Proceedings of The 2016 Spring Conference of the Korea Information Processing Society (KIPS)*, 2016

Miso Kwon, You Hyun Kang, **Hee Jeong Han**, Dong Sub Cho, "Adaptive for time-varing clustering DBSCAN," in *Proceedings of 2016 Information and Control Symposium*, 2016

Posters

Hee Jeong Han, Suhas BN, Ling Qiu, and Saeed Abdullah, "Dementia Diagnosis using Text and Speech Data," in *ICDS Fall 2022 Symposium: Data Science, AI, and a Sustainable, Resilient, and Equitable Future*, 2022

Hee Jeong Han, Suhas BN, Ling Qiu, and Saeed Abdullah, "ACOUSTICS : Automatic classification of subjects with dementia and healthy Controls using text transcriptions and Speech data," in 36TH AAAI Conference on Artificial Intelligence, 2022

Research Experience

Wellbeing & Health Innovation (WHI) Lab

College of Informatics Science and Technology, Pennsylvania State University

University Park, Pennsylvania, U.S.A

Graduate Research Assistant

Aug. 2020 - Present

- Develops a domain specific conversational agents with Generative AI minimizing risks.
- Developed a conversational agent and assessed acceptability and feasibility of its for supporting mental health.
- Investigate the context of alcohol use among college students through collect EMA and sensor data from smartwatches
- Built a deep learning-based model to assess mental health symptoms from text data (e.g. PTSD, dementia).

Dutt Research Group

Department of Computer Science, University of California, Irvine

Irvine, California, U.S.A

Graduate Research Assistant

Jun. 2018 – Jul. 2019

- Proposed a new stress monitoring system. Its algorithm, using PPG, ECG and GSR sensors on wearable device, predicts stress level in everyday settings.

Computer Architecture and System Design Laboratory

Department of Computer Science and Engineering, Ewha Womans University

Seoul, Korea

Undergraduate Research Assistant

Aug. 2015 – Jun. 2016

- Proposed new pedestrian counting system. It contains two algorithms, Adaptive-DBSCAN and Pedestrian Algorithm. and two new hardwares, F-pad and Sonic-Bar.

Extracurricular Activities

W3PHIAI-22 Data Hackallenge (Hackathon/Challenge)

First Winner

Mar. 2022

- Built an ensemble model with two deep learning-based architectures for text and speech analysis. The model achieved 89.8% accuracy when classifying individuals with dementia and health controls.

UbiComp/ISWC 2021

Student Volunteer

Sep. 2021

International Summer Undergraduate Research Fellowship

University of California, Irvine

Mentor

Jun. 2018 – Aug. 2018

- Mentored undergraduate researchers working on healthcare IoT

Career Mentoring

Ewha Womans University

Leader of IT section Team

Mar. 2013 – Jun. 2013

- Researched Korean software and network equipment market from a prospected technology report, and also researched future technology such as Google Glass and 3Doodler

Skills

Research Methods

Experimental Research, Human Subjects Research, Surveys, Interviews, Usability Testing.

Programming Languages and Tools

Python, C/C++, Java, JavaScript, SPSS, JMP, \LaTeX (Overleaf), Git.

Teaching Experience

2023 - 2024	IST 525: Computer-Supported Cooperative Work
2023 - 2024	IST 311: Object-Oriented Design and Software Applications
2023 Fall	IST 520: Foundations of Human-Centered Design
2022 - 2023	HCDD 340: Human-Centered Design for Mobile Computing
2022 Fall	HCDD 264: Design Practice in Human-Centered Design and Development

Awards

2021	CRA-WP Grad Cohort for Women
2016	Silver Prize 2016 Ewha Engineering Student Portfolio Contest
2014	Hoakipa Scholarship University of Hawaii at Manoa <i>Manoa, Hawaii, U.S.A</i>
2012	Merit Scholarship Megastudy Group <i>Seoul, Korea</i>

Work Experience

Mother Tongue

Editor, Writer

Seoul, Korea

Feb. 2017 – Aug. 2017

- Edited “Visual Phonics” for children learning English phonics first with images and songs. I wrote and edited “Middle School English Grammar 3800” series for 7th to 9th grade students.

Health Technology Assessment International 10th Annual Meeting

Conference Staff

Seoul, Korea

Jun. 2013

- Aided foreign speakers and audience with administrative support, and managed keynote back-up system.

Certification

Level 2 of Test Of Practical Competency in ICT (TOPCIT)

TOPCIT is a performance-evaluation-centered test designed to diagnose and assess the competency of ICT specialists and SW developers critically needed to perform jobs on the professional frontier.

Accreditation Board for Engineering Education of Korea (ABEEK)

Korean version of Accreditation Board for Engineering and Technology (ABET)

References available upon request.