

Hee Jeong Han

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Education

- Pennsylvania State University**, University Park, Pennsylvania Sep. 2020 – present
Doctor of Philosophy in Informatics [GPA 4.0 / 4.0]
- University of California, Irvine**, Irvine, California Sep. 2017 – Jun. 2019
Master of Science in Computer Science [GPA 3.76 / 4.0]
Thesis : Objective Stress Monitoring based on Wearable Sensors in Everyday Settings
- Ewha Womans University**, Seoul, Korea Mar. 2012 – Feb. 2017
Bachelor of Science in Computer Science & Engineering
- University of Hawaii at Manoa**, Manoa, Hawaii Jan. 2014 – Dec. 2014
Exchange Student [22 credits]
- École pour l'informatique et les techniques avancées**, Paris, France Jul. 2013
Graduate School of Computer Science and Advanced Technologies
Summer course for Web Security [3 credits]

Publications

- Han, Hee Jeong**, Sina Labbaf, Jessica L. Borelli, Nikil Dutt, and Amir M. Rahmani. "Objective stress monitoring based on wearable sensors in everyday settings." *Journal of Medical Engineering & Technology* 44, no. 4 (2020): 177-189
- 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*, Seoul, Korea, 2016
Best Paper Award, Korea Multimedia Society Conference of the Spring 2016
- 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*, Jeju, Korea, 2016
Best Paper Award, Korea Computer Congress 2016
- 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*, PyeongChang, Korea, 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)*, Seoul, Korea, 2016
- Miso Kwon, You Hyun Kang, **Hee Jeong Han**, Dong Sub Cho, "Adaptive for time-varying clustering DBSCAN," in *Proceedings of 2016 Information and Control Symposium*, Seoul, Korea, 2016

Research Experience

Graduate Research Assistant Well-being and Health Innovation Lab College of Informatics Science and Technology, Pennsylvania State University, University Park, Pennsylvania	Sep. 2020 – Present
<i>PTSDialogue - A conversational agent to sustain patient engagement in PTSD</i> Develops a conversational agent that can deliver therapeutic content and provide supportive accountability in PTSD and assesses feasibility and acceptability of the developed conversational agent for sustaining engagement with patients with PTSD.	Sep. 2020 – Present
Graduate Research Assistant Dutt Research Group Department of Computer Science, University of California, Irvine, Irvine, California	Jun. 2018 – Jul. 2019
<i>Healthcare IoT - Ubiquitous Stress Monitoring using Shimmer's Device</i> Proposed a new stress monitoring system. Its algorithm, using PPG, ECG and GSR sensors on wearable device, predicts stress level in everyday settings.	Jun. 2018 – Jul. 2019
Undergraduate Research Assistant Computer Architecture and System Design Laboratory Department of Computer Science and Engineering, Ewha Womans University, Seoul, Korea	Aug. 2015 – Jun. 2016
<i>Multimodal Pedestrian Counting System using Key-Matrix pad and Sonic-Bar</i> Proposed new pedestrian counting system. It contains two algorithms, Adaptive-DBSCAN and Pedestrian Algorithm. and two new hardwares, F-pad and Sonic-Bar.	

Projects

IoT Data Management Project <i>Acquisition Manager</i> Built acquisition manager of the Perpetual DB, which requires a way to pass the raw data from various sources. The acquisition engine will handle message passing from various sources to the ingestion engine on Apache Kafka.	Apr. 2019 – Jun. 2019
Individual Research Project <i>Stress Monitoring with PPG and GSR</i> Built the stress monitoring system using PPG sensor and GSR sensors on SHIMMER device. It contains the server, database and application for gathering data and showing the result.	Apr. 2018 – Jun. 2018
Health Intelligence Project <i>Stress Monitoring with food intake</i> Investigated the relation between stress and food intake. Stress is analyzed by food intake based on heart rate and heart rate variability.	Apr. 2018 – Jun. 2018

Embedded System Project <i>Physiological signals Monitoring</i> Calculated heart rate, respiration rate, and SPO2 based on collected data from hardware including PPG sensor and 3D accelerometer and investigated the relation between physiological signals and daily activities.	Sep. 2017 – Dec. 2017
Computer Network Project <i>Long Life to you</i> Built a network between IoT devices and servers to provide exercise service for elder people.	Sep. 2016 – Dec. 2016
Smart Software Project <i>Fettler</i> Investigated the sewage system using a Smart Car based on Arduino hardware. It finds the path autonomously based on infrared sensors for exploration of the sewage.	Mar. 2015 – Jun. 2015

Awards

Silver Prize in the 2016 Ewha Engineering Student Portfolio Contest	Dec. 2016
Hoakipa Scholarship , University of Hawaii at Manoa	Jan. 2014 – Dec. 2014
Merit Scholarship from Megastudy Group, Seoul, Korea	Mar. 2012 – Jun. 2012

Work Experience

Mother Tongue , Seoul, Korea <i>Editor, Writer</i> Edited “Visual Phonics” for children learning English phonics first with images and songs. I wrote and edited “Middle School English Grammar 3800” series for 7 th to 9 th grade students.	Feb. 2017 – Aug. 2017
Health Technology Assessment International 10th Annual Meeting , Seoul, Korea <i>Conference Staff</i> Aided foreign speakers and audience with administrative support, and managed keynote back-up system.	Jun. 2013

Extracurricular Activities

International Summer Undergraduate Research Fellowship , University of California, Irvine, Irvine, California <i>Mentor</i> Mentored undergraduate researchers working on healthcare IoT	Jun. 2018 – Aug. 2018
Career Mentoring , Ewha Womans University, Seoul, Korea <i>Leader of IT section Team</i> Researched Korean software and network equipment market from a prospected technology report, and also researched future technology such as Google Glass and 3Doodler	Mar. 2013 – Jun. 2013

Korean Tutor for Foreign Students, Ewha Womans University, Seoul, Korea

Mar. 2013 – May 2013

Tutor

Taught Korean to foreign students

Hanwoori, University of Hawaii, Manoa, Hawaii

Jan. 2014 – Dec. 2014

Club Member

Actively participated in the Korean Culture Club to introduce Korea culture to university students

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)