SANGJAE LEE

✉ summit@kaist.ac.kr | 🔗 sjlee-korea | 🔗 canlang | 📞 +82 10 8960 0708

Education

Korea Advanced Institute of Science and Technology   Daejeon, Republic of Korea
PhD in Computer Science, Advisor: Prof. Dongsoo Han   *Sep. 2012 – Feb. 2021*
- Dissertation: "High-precision Indoor Positioning using Geomagnetic Anomaly"
  Committee: Dongsoo Han (Chair), Giwan Yoon, Geehyuk Lee, Junekoo Rhee, Hojin Choi

Korea Advanced Institute of Science and Technology   Daejeon, Republic of Korea
MS in Computer Science, Advisor: Prof. Dongsoo Han   *Sep. 2010 – Aug. 2012*
- Thesis: "Missing signal imputation for accurate WLAN-based indoor localization system"

Hanyang University   Seoul, Republic of Korea
BS in Computer Science, Advisor: Prof. Yongsuk Choi   *Mar. 2006 – Feb. 2010*
- Project: "Intelligent Lane Detection"
- LEE GAHYUNG scholarship, 3.91/4.5 (Dean's List)

Work Experience

Staff Engineer, Samsung Research   *Seoul, Korea*
- Developed indoor localization and hand tracking algorithm at *Indoor Positioning Solution* and *Connectivity AI* team   (Apr. 2022 – Present)

Publications

Indoor Localization Using Augmented Vector of Geomagnetic Field   2020
Sangjae Lee, Seungwoo Chae, and Dongsoo Han.
- IEEE Access (Journal)

Fusion of the SLAM with Wi-Fi-Based Positioning Methods for Mobile Robot   2020
Gunwoo Lee, Byeong-Cheol Moon, Sangjae Lee, and Dongsoo Han.
- MDPI Sensors (Journal)

Rover Who Make Indoor Radio Map   2019
Sangjae Lee, and Dongsoo Han.
- MobiSys'19, Proceedings of the 17th Annual International Conference on Mobile Systems, Applications, and Services, Seoul, South Korea (Conference proceeding)

Construction of an Indoor Positioning System for Home IoT Applications   2017
Sangjae Lee, et al.
- ICC'17, IEEE International Conference on Communications, Paris, France (Conference)

A Crowdsourcing-Based Global Indoor Positioning and Navigation System   2016
Suk-hoon Jung, Sangjae Lee, and Dongsoo Han.
- Pervasive and Mobile Computing (Journal)

A Sensor Fusion Method for WI-Fi-Based Indoor Positioning   2016
Dongsoo Han, Suk-hoon Jung, and Sangjae Lee.
- ICT Express (Journal)

KAILOS: KAIST Indoor Locating System 2014
*Dongsoo Han, **Sangjae Lee**, and Sunghoon Kim.*
- IPIN'14, International Conference on Indoor Positioning and Indoor Navigation, Busan, South Korea (Conference)

Uncaught Signal Imputation for WLAN-Based Positioning 2012
***Sangjae Lee**, Sukhoon Jung, and Dongsoo Han.*
- MobiGIS'12, Proceedings of the First ACM SIGSPATIAL International Workshop on Mobile Geographic Information Systems, Redondo Beach, California (Conference)

Elekspot: A Platform for Urban Place Recognition via Crowdsourcing 2012
*Minkyu Lee, SukHoon Jung, **Sangjae Lee**, and Dongsoo Han.*
- SAINT'12, 2012 IEEE/IPSJ 12th International Symposium on Applications and the Internet, Izmir, Turkey (Conference)

Research Projects

Huawei R&D   *Shanghai, China*
- Automated Techniques for Crowdsourcing Radio Map Construction   (Oct. 2018 – Sep. 2021)

National Research Foundation of Korea (NRF)   *Daejeon, Korea*
- Crowdsourcing-based Indoor GPS System   (Mar. 2020 – Feb. 2021)
- Integrated Operation Technology for Science Museum Services Based on GIPS
   (Jan. 2019 – Dec. 2019)

Korea Advanced Institute of Science and Technology   *Daejeon, Korea*
- COVID-19 Infection Prevention System in Hospitals   (Aug. 2020 – Dec. 2020)
- Robot-based Indoor Positioning for Location-based Home IoT Service Platform
   (Sep. 2016 – Dec. 2016)

Samsung Electronics   *Suwon, Korea*
- Location-based Malicious Access Point Detection Technology   (May. 2018 – Dec. 2018)
- Wi-Fi-based Map Construction and Positioning Technology   (Apr. 2016 – Mar. 2017)
- Automatic Generation and Update Technology for Radio Maps   (May. 2013 – Feb. 2014)

NET Co., Ltd.   *Ulsan, Korea*
- Integrated Safety Management System for Offshore Plant Workers Based on Hybrid Positioning Technology   (May. 2017 – Jul. 2018)

Korea Transport Institute (KOTI)   *Sejong, Korea*
- Feasibility Test and Evaluation of Applying Existing Indoor Positioning Technology to Railway Stations   (Nov. 2014 – Jun. 2015)

Korea Trade Network (KTNET)   *Daejeon, Korea*
- KTNET-KAIST Joint Research Center Support Project   (Dec. 2012 – Jan. 2015)

Skills

Languages: Python, Java, JavaScript, MATLAB, R, C, Kotlin