Jaeyoung Kang

https://tycheyoung.github.io

9500 Gilman Dr, La Jolla, CA • j5kang@eng.ucsd.edu

RESEARCH INTERESTS

- IoT/Embedded Systems, Wireless Network, Distributed Learning, VLSI Implementation

EDUCATION

- **University of California, San Diego** — La Jolla, CA
  Ph.D. Student in Electrical and Computer Engineering — *Sept. 2019 - Present*

- **Korea University** — Seoul, Korea
  B.E. Degree in Electrical Engineering, Graduated with Great Honor — *Mar. 2013 - Feb. 2019*

PUBLICATIONS

[4] Jaeyoung Kang, Illsoo Sohn, and Sang Hyun Lee, "Data Compression-considered LEACH Protocol for Wireless Sensor Networks", *JCCI*, 2019

[3] Jaeyoung Kang, Illsoo Sohn, and Sang Hyun Lee, "Enhanced Message-Passing Based LEACH Protocol for Wireless Sensor Networks", *Sensors*, vol. 19, no. 1, p. 75, 2018.

[2] Jaeyoung Kang, Minji Kim, and Sang Hyun Lee, "Maximizing Wireless Sensor Network lifetime by message passing between nodes", *Proc. of Symposium of the Korean Institute of Communications and Information Sciences*, 2018

[1] Jaeyoung Kang, Seungho Yoo, and Hwangnam Kim, "LOS and NLOS classification of UWB signals using CapsNet", *Proc. of Symposium of the Korean Institute of Communications and Information Sciences*, 2018

RESEARCH EXPERIENCES

- **Lab for Informatics, Communications, and Systems** — Seoul, Korea
  Research Intern (Advisor: Prof. Sang Hyun Lee) — *Jan. 2018 - Present*
  - Led project on lifetime maximization of wireless sensor networks using message-passing algorithm and graphical model approach to distributed optimization and decision
  - Explored generalized approximate message passing for localization in V2X communication

- **Wireless & Wired Inter-Networking and Evaluation Lab** — Seoul, Korea
  Undergraduate researcher (Advisor: Prof. Hwangnam Kim) — *Sept. 2017 - Dec. 2017*
  - Led project on NLOS UWB signal identification using deep learning for indoor positioning of drone swarms

WORK EXPERIENCE

- **Office of Information Technology and Service,** Korea University — Seoul, Korea
  Data Engineer — *May 2019 - Aug. 2019*
  - Designed ETL pipeline and REST API in data warehouse for integrating and managing campus data

Teaching Experiences

- **Engineering Mathematics I** *Seoul, Korea*
  Teaching Assistant (Advisor: Prof. Nakju Lett Doh) *Mar. 2017 - June 2017*
    - Covered fundamental mathematics for engineering, including MATLAB exercises
    - Had two hours of office hour every week, answered questions in person at online, marked exams and assignments

Technological Skills

- **Languages**: C, Python, MATLAB, Verilog, LaTeX, ARM Assembly (ADS), React.js
- **Technologies**: Spectre, SPICE, Quartus, Multisim, Design Compiler