

HOJEONG LEE

+82 10 4555-8941 ◇ hojeong0507@korea.ac.kr ◇ <https://leethink.github.io/>
301C Woojung Hall of Informatics, 145 Anam-ro, Seongbuk-gu, Seoul, Republic of Korea

EDUCATION

Korea University M. Eng. in Department of Computer Science and Engineering Emphasis on Artificial Intelligence Applications Major GPA 4.5/4.5, Overall GPA 4.5/4.5	Mar 2022 - Present <i>Seoul, Korea</i>
Korea University B. Eng. in Department of Computer Science and Engineering Major GPA 4.02/4.5, Overall GPA 3.66/4.5	Mar 2016 - Feb 2022 <i>Seoul, Korea</i>

EXPERIENCE

University of Colorado Boulder Visiting Scholar, advised by Prof. Sangtae Ha and Dr. Seyeon Kim Fully funded by Korea University (\$22,140)	Mar 2024 - Present <i>Boulder, CO, U.S.</i>
Carnegie Mellon University Collaborating Visitor, AI-Related Project-Focused Intensive Program Selected on merit-basis in national competition process Fully funded by Korean Government (\$18,282)	Aug 2022 - Feb 2023 <i>Pittsburgh, PA, U.S.</i>
Wireless Data Communications Lab, Korea University Research Intern, advised by Prof. Hyogon Kim	Jun 2021 - Feb 2022 <i>Seoul, Korea</i>
NAVER Coach, Boost Course PY4E Selected as an Excellent Coach	Jul 2021 - Aug 2021 <i>Seoul, Korea</i>
NAVER Coach, Boost Course CS50	Jan 2021 - Feb 2021 <i>Seoul, Korea</i>
Korea University Software Education Volunteer	Aug 2020 - Dec 2020 <i>Seoul, Korea</i>

PUBLICATIONS

- **Hojeong Lee**, Seungmo Kang, Hyungjoon Shin and Hyogon Kim. Thinking Causality to Mitigate Latency in Vehicle-to-Vehicle Interactions. (working on)
- Seungmo Kang, **Hojeong Lee** and Hyogon Kim. Mitigating Latency Inflation in V2C Transactions Using Periodic Sidelink Communication. IEEE Vehicular Networking Conference (VNC), Kobe, Japan, 2024.
- **Hojeong Lee**, Chanwoo Kim, Eugene Yang and Hyogon Kim. Distributed Congestion Joint Control for V2X Using Multi-Agent Reinforcement Learning. IEEE International Conference on Machine Learning for Communication and Networking (ICMLCN), Stockholm, Sweden, 2024.
- **Hojeong Lee** and Hyogon Kim. Improving One-Shot Transmission in NR Sidelink Resource Allocation for V2X Communication. arXiv preprint arXiv:2312.15914, 2023.
- **Hojeong Lee** and Hyogon Kim. Rethinking Transmit Power Control for SAE J3161/1 Congestion Control Algorithm. IEEE Vehicular Technology Conference (VTC2023-Fall), Hong Kong, 2023.
- Yeomyung Yoon, **Hojeong Lee** and Hyogon Kim. Deep reinforcement learning-based dual-mode congestion control for cellular V2X environments. *Electronics Letters*, 59 (20), 2023.

- Kyeongnam Park, **Hojeong Lee** and Hyogon Kim. Speed-Aware V2X Congestion Control. IEEE Vehicular Technology Conference (VTC2023-Fall), Hong Kong, 2023.
- Kyeongnam Park, Kyungha Kim, Hyungjoon Shin, **Hojeong Lee** and Hyogon Kim. Strategically Positioning On-Board PEPs in LEO-based NTN for TCP Throughput Improvement. IEEE Vehicular Technology Conference (VTC2023-Fall), Hong Kong, 2023.
- Hyeonji Seon, **Hojeong Lee** and Hyogon Kim. Predicting CAM generation times through machine learning for cellular V2X communication. *ICT Express*, 9 (5), 2023. (SCIE, IF: 5.4, acceptance rate: 19%)
- Joseph Konan, Ojas Bhargave, Shikhar Agnihotri, **Hojeong Lee**, Ankit Shah, Shuo Han, Yunyang Zeng, Amanda Shu, Haohui Liu, Xuankai Chang, Hamza Khalid, Minseon Gwak, Kawon Lee, Minjeong Kim and Bhiksha Raj. Improving Perceptual Quality, Intelligibility, and Acoustics on VoIP Platforms. arXiv preprint arXiv:2303.09048, 2023.
- Hyeonji Seon, **Hojeong Lee** and Hyogon Kim. Packet Delivery Impact of Predictive Resource Allocation for Quasi-Periodic Cellular V2X Communication. IEEE Vehicular Technology Conference (VTC2023-Spring), Florence, Italy, 2023.
- Jonghwan Na, **Hojeong Lee** and Hyogon Kim. Inferring Human Driver Intent in Partial Deployment of Connected Autonomous Vehicles: the Lane Change Case. IEEE Vehicular Technology Conference (VTC2023-Spring), Florence, Italy, 2023.
- Hyeonji Seon, **Hojeong Lee** and Hyogon Kim. Predicting CAM generation times through machine learning for cellular V2X communication (in Korean). Annual Spring Conference of Korea Information Processing Society (ASK), Seoul, Korea, 2022. (**Outstanding Paper Award**)

PROJECTS

Carnegie Mellon University

- **Speech Enhancement for Virtual Meetings on Cellular Networks** [arXiv] Sep 2022 - Mar 2023
11785 Introduction to Deep Learning, instructed by Prof. Bhiksha Raj
Academic Project, with Joseph Konan
- **Natural Language Processing (NLP) Enabled Edge Device (NEED)** [GitHub] Dec 2022 - Feb 2023
Mentored by Clifford C. Huff
- **Multi-Agent Reinforcement Learning based Distributed Congestion Joint Control for V2X Communication** Sep 2022 - Dec 2022
17759 Advanced Topics in Machine Learning and Game Theory, instructed by Prof. Fei Fang
Academic Project
- **Adaptive Subtitle Allocation with Speaker Separation** Sep 2022 - Dec 2022
11775 Large-Scale Multimedia Analysis, instructed by Prof. Alexander G. Hauptmann and Rita Singh
Academic Project

Korea Automotive Technology Institute

- **A New V2N Communication Structure for Accident Risk Alert Service** May 2023 - Sep 2023
Project Leader, Autonomous Vehicle Pedestrian Collision Prevention and Injury Reduction Technology
Government Project-Based Learning (gPBL)

National Research Foundation of Korea (NRF)

- **Efficient Communication for Expansion of Situation Awareness of Autonomous Vehicles** Jul 2021 - Aug 2022

AWARDS & GRANTS

IEEE Communications Society (ComSoc) Student Travel Grant
ICMLCN 2024 (\$700)

May 2024
Stockholm, Sweden

IEEE Vehicular Technology Society (VTS) Student Travel Grant
VTC2023-Fall (\$1,000)

Oct 2023
Hong Kong