Hanju Yoo

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SUMMARY

I am a Ph.D. student researching for **deep learning for communications** and **information theory for deep learning** at the Intelligence Networking Lab., Yonsei University, Korea. Before joining the lab, I earned a B.E. from the School of Integrated Technology at Yonsei University, graduating with the highest honors. My research interest includes semantic communications, learned image compression, and computer vision. I was an exhibitor at CES 2023 on behalf of Yonsei University, and am a recipient of the 2022 Qualcomm IT Tour Program. Committed to community engagement, I have served as a teaching assistant for three years and have two years of student council experience. I also love to solve real-world problems by creating automated, sustainable, and systematic solutions.

EDUCATION

2021 — Present	**Yonsei University** Ph.D. Student *(Advisor: Prof. Chan-Byoung Chae)*	Seoul, Korea
2018 — 2021	**Yonsei University** B.E. Integrated Technology (GPA: 4.15/4.3, **Graduated with Highest Honors**)	Seoul, Korea

PUBLICATIONS

1. Y. Kim, H.-J. Moon, **H. Yoo**, B.-N. Kim, K.-K. Wong, and C.-B. Chae, "A State-of-the Art Survey on Full Duplex Network Design," under revision for *Proc. IEEE*

2. **H. Yoo**, L. Dai, S. Kim, and C.-B. Chae, "On the Role of CNN and ViT on Semantic Communications: Analysis and Prototype Validation," *IEEE Access*, vol. 11, pp. 71528-71541, July 2023

3. **H. Yoo**, L. Dai, S. Kim, and C.-B. Chae, "Real-Time Semantic Communications With a Vision Transformer," *IEEE Int. Conf. Commun. Workshops (ICC WKSHPS)*, May 2022

AWARDS AND HONORS

Feb. 2023	Exhibitor, **CES 2023** *Demonstrated real-time wireless semantic communications testbed in behalf of Yonsei college of engineering.*
Aug. 2022	Recipient, **Qualcomm IT Tour Program** *Participated in the Qualcomm IT Tour, a fully-funded program providing a visit tof Qualcomm's San Diego headquarters with executive presentations and networking opportunities.*
Feb. 2021	**Graduated with Highest Honors** *<1% in college of engineering, ranked 1st*
Mar. 2018	**Full Scholarship for Undergraduate** *Issued by Ministry of Science and ICT of Korea (MSIP) and National IT Industry Promotion Agency (NIPA)*

EXPERIENCES

Mar. 2021 — Dec. 2023	**Teaching Assitant**, Computationtal Thinking and SW Programming, Yonsei University *Led weekly 4-hour Python lectures and prepared course materials and exams.*
Mar. 2019 — Oct. 2020	**Head Developer**, Yonsei University Student Council *Designed and built the website using React and Ruby on Rails, deployed on AWS EC2.*

PROJECTS

2011 — 2018	**KBoost** *A Windows process cleaner with 50k+ downloads, featured in IT Donga software reviews[1].*
2020	**Python Assignment Evaluator** `https://github.com/kmsiapps/python-assignments-evaluator` *An automated evaluator for Python assignments, featuring score assessment and diff visualization.*
2021	**PMSim** `https://github.com/kmsiapps/pmsim` *A VM migration simulator for online IDE service, incorporating a novel load-prediction algorithm designed to optimize VM migrations and fully utilize the capacity of physical machines.*

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[1] https://it.donga.com/23713/

SKILLS

- **Languages:** Korean (Native), English (Fluent, TEPS 521)
- **Foundational Expertise in EECS:** Communications Theory, Computer Networks, Operating Systems, Computer Architecture, Parallel/GPU Computing, Compiler Design, and Computational Theory
- **Programming:** Python, Matlab, Tensorflow, C/C++ (Fluent), Javascript, Ruby, CUDA, LabVIEW (Intermediate)