

SUMMARY	<p>My research focuses on Efficient and Trustworthy machine learning to enable the real-world deployment of ML models in decentralized scenarios. My previous and ongoing work addresses:</p> <ul style="list-style-type: none"> • Continual learning on collaborative learning systems • Model compression for federated learning on system heterogeneous devices • Trustworthy graph learning via conformal prediction 	
EDUCATION	<p>The University of Texas at Austin Austin, TX <i>Ph.D. in Electrical and Computer Engineering</i> 2024 - Present</p> <ul style="list-style-type: none"> • Advisor: Prof. Haris Vikalo <p>Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea <i>M.S. in Electrical Engineering</i> 2022 - 2024</p> <ul style="list-style-type: none"> • GPA: 4.17/4.3 <p><i>B.S. in Electrical Engineering</i> 2017 - 2022</p> <ul style="list-style-type: none"> • GPA: 4.03/4.3 (Summa Cum Laude) 	
PUBLICATIONS	<ol style="list-style-type: none"> 1. Honggu Kang, Seohyeon Cha, Jinwoo Shin, Jongmyeong Lee, and Joonhyuk Kang, “NeFL: Nested Federated Learning for Heterogeneous Clients,” <i>arXiv preprint arXiv:2308.07761</i>, 2023. (Under Review) 2. Seohyeon Cha, Honggu Kang, and Joonhyuk Kang, “On the Temperature of Bayesian Graph Neural Networks for Conformal Prediction,” In <i>NeurIPS 2023 Workshop: New Frontiers in Graph Learning</i>, 2023. 3. Seohyeon Cha, Sanghyuk Kim, Jiwan Seo, and Joonhyuk Kang, “Intelligent Surface-aided Transmit-array Antenna in mmWave Communication System with Historical Channel Observation,” In <i>IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia)</i>, 2022. 	
PROJECTS	<p>Generative Model-aided FL for Heterogeneous Clients Sep 2023 - Aug 2024</p> <ul style="list-style-type: none"> • Developed a FL method for deploying heterogeneous models on edge devices <p>Spectrum Sensing and Signal Type Classification in 6GHz Band Sep 2021 - Jan 2024</p> <ul style="list-style-type: none"> • Implemented shared spectrum model in 6 GHz band and developed signal classification and detection algorithm <p>Surface Defect Detection of Airplane Using Object Detection Jul 2023 - Jan 2024</p> <ul style="list-style-type: none"> • Implemented object detection algorithm for surface defect detection using PyTorch 	
HONORS	<ul style="list-style-type: none"> • National Science and Engineering Scholarship, Academic Excellence 2019 - 2021 • Korean Governmental Scholarship, KAIST Graduate 2022 - 2024 • Korean Governmental Scholarship, KAIST Undergraduate 2017 - 2018 	
TEACHING EXPERIENCES	<p>Undergraduate Individual Study Assistant, KAIST 2023</p> <p>Teaching Assistant, KAIST</p> <ul style="list-style-type: none"> • EE205 Data Structures and Algorithms for Electrical Engineering, Fall 2022 • EE966 M.S. Seminar <Colloquium>, Spring/Fall 2023 <p>Tutor for freshman, KAIST 2018 - 2019</p> <ul style="list-style-type: none"> • MAS101 Calculus 1, MAS102 Calculus 2 	
SKILLS	<p>Languages: English (Fluent), Korean (Native)</p> <p>Programming: Python, MATLAB, \LaTeX, C++.</p> <p>Tools: PyTorch, TensorFlow, Linux, Git, Pandas.</p>	