

Changhun Kim

CONTACT INFORMATION	Position: Machine Learning Researcher @ AITRICS Email: changhun.kim@aitrics.com , chan9hun.k1m@gmail.com Links: Homepage , Google Scholar , GitHub , LinkedIn , X
RESEARCH INTERESTS	My research interests lie in developing scalable and provable machine learning algorithms for various applications. Currently, I am particularly intrigued by the following topics: Generalizable Deep Learning: Test-Time Adaptation, Meta-Learning, Zero-Shot Learning Generative Models: Diffusion Models, Multimodal Generative Models Bayesian Machine Learning: Bayesian Deep Learning, Bayesian Nonparametrics
EDUCATION	Korea Advanced Institute of Science and Technology (KAIST) Daejeon, South Korea M.S. in Artificial Intelligence Mar. 2022 – Feb. 2024 <ul style="list-style-type: none">Thesis: Test-Time Adaptation for Automatic Speech Recognition via Sequential-Level Generalized Entropy MinimizationAdvisor: Eunho YangGPA: 4.25/4.3, 4.0/4.0, 99.5% (Department Salutatorian, Top 0.7% of all Departments) B.S. in Computer Science and Mathematics (Double Major) Mar. 2017 – Feb. 2022 <ul style="list-style-type: none">Magna Cum Laude with Honors in EngineeringGPA: 3.92/4.3, 3.81/4.0, 96.2% (Top 9% in the Department)
PUBLICATIONS	*: Equal Contribution Stable-TTS: Stable Speaker-Adaptive Text-to-Speech Synthesis via Prosody Prompting under Limited Target Samples Wooseok Han*, Minki Kang*, Changhun Kim and Eunho Yang Under Review CloudFixer: Test-Time Adaptation for 3D Point Clouds via Diffusion-Guided Geometric Transformation Hajin Shim*, Changhun Kim* and Eunho Yang Under Review SGEM: Test-Time Adaptation for Automatic Speech Recognition via Sequential-Level Generalized Entropy Minimization [paper] [code] Changhun Kim , Joonhyung Park, Hajin Shim and Eunho Yang Conference of the International Speech Communication Association (INTERSPEECH), 2023 Oral Presentation, 348/2293=15.2%
RESEARCH EXPERIENCE	Medical AI Division, AITRICS Seoul, South Korea Machine Learning Researcher Nov. 2023 – Present <ul style="list-style-type: none">Conduct research on large language model and test-time adaptation for time series analysis, with a particular emphasis on biomedical signal analysis, in collaboration with Prof. Eunho Yang. Machine Learning and Intelligence Laboratory, KAIST Daejeon, South Korea Master's Student Mar. 2022 – Feb. 2024 <ul style="list-style-type: none">Explore modality-specific test-time adaptation strategies on diverse tasks, such as 3D point cloud classification, zero-shot transfer of vision-language models, automatic speech recog-

	<p> nition, and tabular classification under Prof. Eunho Yang. </p>	
	<p> Research Intern </p> <ul style="list-style-type: none"> Investigate a style matching denoiser for automatic speech recognition under the supervision of Prof. Eunho Yang. 	<p> Jun. 2021 – Feb. 2022 </p>
	<p> Vehicular Intelligence Laboratory, KAIST </p>	<p> Daejeon, South Korea </p>
	<p> Research Intern </p> <ul style="list-style-type: none"> Research a deep reinforcement learning system for AI soccer, and develop rule-based and deep learning AI soccer code generators under the guidance of Prof. Dongsoo Har. 	<p> Oct. 2019 – Aug. 2020 </p>
WORK EXPERIENCE	<p> MLOps Squad, DeepNatural AI </p>	<p> Seoul, South Korea </p>
	<p> Machine Learning Engineer </p> <ul style="list-style-type: none"> Construct diverse machine learning systems, including speaker verification and diarization framework, Duchenne smile classifier, and medical product recommender system. 	<p> Sep. 2020 – Feb. 2021 </p>
	<p> Big Data Center, Netmarble </p>	<p> Seoul, South Korea </p>
	<p> Data Engineer </p> <ul style="list-style-type: none"> Develop log-based real-time OLAP service for Seven Knights mobile game. 	<p> Jun. 2019 – Aug. 2019 </p>
HONORS AND AWARDS	<p> Best MLILAB Member for 2022 – 2023, KAIST </p>	<p> Jul. 2023 </p>
	<p> Dongwon Scholarship (Full M.S.), KAIST </p>	<p> 2022 – 2023 </p>
	<p> Magna Cum Laude, College of Engineering, KAIST </p>	<p> Feb. 2022 </p>
	<p> Silver Prize, Korean Undergraduate Mathematics Competition </p>	<p> Jan. 2022 </p>
	<p> Overseas Exchange Scholarship, Mirae Asset </p>	<p> Dec. 2019 </p>
	<p> Representative of Student Exchange Ambassador, KAIST </p>	<p> Nov. 2019 </p>
	<p> Honor Student, College of Engineering, KAIST </p>	<p> Sep. 2019 </p>
	<p> Convergence AMP Scholarship, KAIST </p>	<p> Mar. 2019 </p>
	<p> Winner, Science Quiz, KAIST-POSTECH Science War </p>	<p> Sep. 2018 </p>
	<p> Participation Prize, Urban Design Competition, CEE, KAIST </p>	<p> Dec. 2017 </p>
	<p> National Scholarship (Full B.S.), KAIST </p>	<p> 2017 – 2021 </p>
SKILLS	<p> Programming Skills </p> <p> Programming Languages: C/C++, Java, Python, SQL Libraries/Frameworks: PyTorch, TensorFlow </p>	
	<p> Languages </p> <p> Advanced in English and Native in Korean </p>	