Minjae Lee

Graduate School of AI, KAIST
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EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) Seongnam, Korea
Graduate School of AI (GSAI) Sep. 2021 ~ Present
Advisors: Edward Choi

Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
B.S in Industrial & Systems Engineering (ISysE); Minor in Economics Feb. 2021
Honors: summa cum laude (GPA 4.0/4.3)

Technical University of Berlin (Technische Universität Berlin, TUB) Berlin, Germany
KAIST Outbound Exchange Program in Informatics (Informatik) Apr. 2017 ~ Jul. 2017
Honors: Mirae Asset Outbound Exchange Student Scholarship

Research Interest

Machine Learning for Healthcare, Natural Language Processing, Climate change, Society modeling, Civic engagement

Research Experience / Project

Document Intelligence Project: Administrative Process Automation Model, GSAI KAIST Sep. 2022 ~ Present
Generates synthetic EMR with cutting-edge diffusion generative model

EMR Synthesis with Diffusion Model, GSAI KAIST Jul. 2022 ~ Present
Generates synthetic EMR with cutting-edge diffusion generative model

EMR Compression & Decompression in a Scalable approach, GSAI KAIST Sep. 2021 ~ Present
Researches schema agnostic EMR reconstruction, prediction, and generation in a scalable way

EMR Text-Tabular Multimodal Learning with SNUH, GSAI KAIST Sep. 2021 ~ Present
Conducts research for AKI prediction, and synthesizing the patient data in cooperation with the SNUH (Seoul Natl. Univ. Hospital)

Work Experience

Internship, NAVER CLOVA Seongnam, Korea
Joined Efficient-AI team for quantization, compression, and optimization of Deep Learning model Dec. 2021 ~ Feb. 2022

Other Experience

Lab Synchronization Seminar, GSAI KAIST Daejeon, Korea
Launched periodic seminar for sharing and discussing the research ideas Oct. 2022

Paper Review Seminar (EDLAB Tech-talk) for Diffusion models, GSAI KAIST Daejeon, Korea
Improved Denoising Diffusion Probabilistic Models (Nichol et al., 2021) May. 2022
Classifier-Free Diffusion Guidance (Ho et al., 2021) April. 2022
Structured Denoising Diffusion Models in Discrete State-Space (Ho et al., 2021) Sep. 2022

Launched for Diffusion models, GSAI KAIST Daejeon, Korea
Improved Denoising Diffusion Probabilistic Models (Nichol et al., 2021) May. 2022
Classifier-Free Diffusion Guidance (Ho et al., 2021) April. 2022
Structured Denoising Diffusion Models in Discrete State-Space (Ho et al., 2021) Sep. 2022

TA for 'Programming for AI', 'Machine Learning for Healthcare', GSAI KAIST Daejeon, Korea
Directed practice session for Autoencoder, GAN, Diffusion Model Sep. 2021 ~ Present

The Bureau of Social Participation, KAIST Undergraduate Student Council (USC) Daejeon, Korea
Head Jan. 2018 ~ Dec. 2018
Directed projects to ensure labor rights, learning rights, privacy of campus members and to form public forum in the campus.
Member Sep. 2017 ~ Dec. 2017
Planned and implemented 'KAIST Human Rights Week' to make a campus where human rights are respected.

AWARDS AND HONORS

National Science and Technology Scholarship, Ministry of Science, Korea 2021 ~ Present
Graduation with honors: *summa cum laude*, KAIST 2021
Outbound Exchange Student Scholarship, Mirae Asset 2017
Scholarship for academic excellence (2nd place), KAIST 2016
National Science and Technology Scholarship (merit-based), Ministry of Science, Korea 2015 ~ 2016
Undergraduate School Fellowship, KAIST 2013 ~ 2016