

Jungwoo Park

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EDUCATION	Kwangwoon University <i>B.S. in Information Convergence, Major in Data Science</i> • Overall GPA of 4.17/4.5, Major GPA of 4.43/4.5 • Full-ride merit scholarships × 2, one-quarter tuition scholarships × 3	Seoul, South Korea Mar. 2018 – Feb. 2024
INTERESTS	Computer Vision, NLP, Multimodal Learning	
SKILLS	• Kaggle: Competition Master, achieved highest rank of 54 th (Aug. 2023) • Languages: Python, Modern C++, CUDA, Java, JavaScript • AI Frameworks: PyTorch, Jax/Flax, TensorFlow	
LANGUAGE	• Korean: Native • English: Fluent, TOEIC 920, TEPS 330	
PUBLICATION	• Youngjin Ahn*, Jungwoo Park* , Sangha Park, Jonghyun Choi, Kee-Eung Kim, “SyncVSR: Data-Efficient Visual Speech Recognition with End-to-End Crossmodal Audio Token Synchronization”, <i>Submitted to Interspeech 2024</i> (* Equal contribution)	
RESEARCH EXPERIENCES	Research Internship <i>Vision & Learning Laboratory, Dept. of CSE, Seoul National University</i> • Addressed the canonical space collapse problem for large motion in dynamic Gaussian splatting. • Developed the open-set video person re-identification system and backend API server.	Jan. 2024 – Seoul, South Korea
	Research Internship <i>Visual Computing Laboratory, Dept. of CSE, Kwangwoon University</i> • Contributed to the extension of ISO/IEC JTC 1/SC 29/WG 2 m57343. • Implemented complexity reduction methods to improve Faster R-CNNs under the VTM-8.2 quantization.	Jul. 2022 – Dec. 2022 Seoul, South Korea
PROJECTS	Jax/Flax Re-implementation of DeiT and DeiT-III [GitHub] • Reproduce the ViT training on ImageNet-1k and ImageNet-21k with DeiT and DeiT-III recipes. • All models are trained on a TPU v4-64 pod slice, supported by the TPU Research Cloud program.	Mar. 2024
	Jax/Flax Inference Codes for LLMs on TPU [GPT-NeoX] [StarCoder] • Implemented GPT-NeoX (Polyglot) and StarCoder (GPTBigCode) models using Jax/Flax. • Applied Tensor Parallelism to facilitate up to 30B models on a TPU-v3-8 node.	Apr. 2023 – Jun. 2023
	Large-scale Pre-Training for Molecular Property Prediction [GitHub] • Predicting molecular properties (e.g. S1-T1 energy gap) from 3D compound structure instead of SMILES. • Pre-trained using PubChem Compound 3D (50M) and PubChemQC (3.4M) datasets on A100. • Won the 1 st prize in <i>Samsung AI Challenge for Scientific Discovery</i> .	Aug. 2021 – Nov. 2021
	Korean GPT-2 Pre-Training [GitHub] [Demo] • A pure PyTorch implementation of the GPT-2 for simple, easy and comprehensible code. • Trained 300M model with 30GB korean corpus (5B subword tokens) on 2xV100 for 24 days.	May. 2020 – Sep. 2020
	Inverse DALL-E for Optical Character Recognition [GitHub] • Modified the DALL-E architecture to recognize optical characters from textual images. • Text-aware VQGAN image tokens are followed by optical characters in the decoder inputs. • Won the 1 st prize in <i>Joint AI Hackathon for SWU 2022</i> at MSIT.	Jun. 2022 – Nov. 2022
	ALREADYME.md – README.md Generation Service [Overview] [GitHub] • Fine-tuned BLOOM 1.7B model using LoRA with 1TB CodeParrot dataset on A100. • Won the 2 nd prize in <i>Open SW Developer Challenge 2022</i> at MSIT.	Jun. 2022 – Dec. 2022

	Coverist AI – Book Cover Generation Service [Overview] [GitHub] • Trained DALL-E for generating a book cover image from its title, author, publisher, and genre. • Won the 2 nd prize in <i>Spring Semester 2022 Chambit Contest</i> at Kwangwoon University.	Jan. 2022 – Jun. 2022
	Novelist AI [GitHub] • Deployed KakaoBrain’s KoGPT-J 6B with NVIDIA Triton and FasterTransformer. • Wrote an integrated script for weight conversion, inference optimization, and docker builds. • Implemented a FastAPI backend server for delivering responses from Triton server.	Aug. 2022 – Dec. 2022
	huggingface/transformers • Pix2Struct: fix wrong broadcast axis of attention mask in visual encoder [#23976] • Change DataCollatorForSeq2Seq to pad labels to a multiple of pad_to_multiple_of [#13949]	Jun. 2023 Oct. 2021
OPENSOURCE CONTRIBUTION		
COMPETITIONS	Kaggle Competitions [Profile] • Feedback Prize - Evaluating Student Writing [Overview] [GitHub] <i>NLP, Gold Medal (4th place / 2,058 teams)</i> • Google - American Sign Language Fingerspelling Recognition [Overview] [GitHub] <i>Video Classification, Gold Medal (5th place / 1,315 teams)</i> • G2Net Detecting Continuous Gravitational Waves [Overview] [GitHub] <i>Signal Processing, Silver Medal (12nd place / 936 teams)</i> • Learning Equality - Curriculum Recommendations [Overview] <i>NLP, Silver Medal (13rd place / 1,057 teams)</i> • Benetech - Making Graphs Accessible [Overview] <i>Vision, Silver Medal (26th place / 608 teams)</i> • Google AI4Code – Understand Code in Python Notebooks [Overview] [GitHub] <i>NLP, Silver Medal (39th place / 1,135 teams)</i> • Feedback Prize - Predicting Effective Arguments [Overview] [GitHub] <i>NLP, Silver Medal (40th place / 1,557 teams)</i> • CommonLit Readability Prize [Overview] [GitHub] <i>NLP, Silver Medal (42nd place / 3,633 teams)</i> • Bristol-Myers Squibb – Molecular Translation [Overview] [GitHub] <i>Chemistry, Silver Medal (50th place / 874 teams)</i> • Riid Answer Correctness Prediction [Overview] [GitHub] <i>Tabular, Silver Medal (78th place / 3,406 teams)</i> • Humpback Whale Identification [Overview] <i>Vision, Bronze Medal (189th place / 2,120 teams)</i> • Quick, Draw! Doodle Recognition Challenge [Overview] <i>Vision, Bronze Medal (74th place / 1,309 teams)</i>	Mar. 2022 Aug. 2023 Jan. 2023 Mar. 2023 Jun. 2023 Nov. 2022 Aug. 2022 Aug. 2021 Jun. 2021 Jan. 2021 Mar. 2019 Dec. 2018
	Domestic Competitions • Joint AI Hackathon for SWU 2022 [Overview] <i>OCR, Top Prize (과학기술정보통신부장관상)</i> • Samsung AI Challenge for Scientific Discovery [Overview] [GitHub] [YouTube] <i>Chemistry, Top Prize (삼성종합기술원장상)</i> • Job Recommendation with KNOW Challenge [Overview] [GitHub] <i>NLP, Top Prize (한국고용정보원장상)</i> • The 3rd BigData AI Startup Contest [Overview] <i>NLP, Top Prize (한국가스공사장상)</i> • LG Meeting Transcript Summarization Challenge [Overview] <i>NLP, Top Prize</i> • Open SW Developer Challenge 2022 [Overview] <i>NLP, Excellence Prize (정보통신산업진흥원장상)</i>	Dec. 2022 Nov. 2021 Feb. 2022 Dec. 2021 Nov. 2021 Dec. 2022

AWARDS

Academic Awards

- **Dean's List**, 5th semester *Oct. 2022*
- **Dean's List**, 3rd semester *Oct. 2021*
- KWU 2nd AI Hackathon 2022, ***Top Prize*** *Oct. 2022*
- KWU 1st AI Hackathon 2021, *Excellence Prize* *Oct. 2021*
- KWU 1st AI Idea Contest, *Excellence Prize* *Nov. 2018*
- Spring Semester 2022 Chambit Contest, *Excellence Prize* *Jun. 2022*