# Young Jin Ahn

snoop2head@kaist.ac.kr | GitHub | Google Scholar

#### **EDUCATION**

**KAIST - Korea Advanced Institute of Science and Technology** (Advisor: Kee-Eung Kim) Seoul, South Korea

M.S. in Artificial Intelligence; GPA: 4.17 / 4.3

September 2023 – June 2025

Yonsei University

Seoul, South Korea

B.A. in Economics & Minor in Applied Statistics; GPA: 3.81 / 4.3

*March* 2015 – *August* 2023

#### **PUBLICATIONS**

SyncVSR: Data-Efficient Visual Speech Recognition with End-to-End Crossmodal Audio Token Synchronization

Young Jin Ahn\*, Jungwoo Park\*, Sangha Park, Jonghyun Choi, Kee-Eung Kim.

#### **Interspeech 2024**

Monet: Mixture of Monosemantic Experts for Transformers

Jungwoo Park\*, Young Jin Ahn\*, Kee-Eung Kim, Jaewoo Kang.

**Under Review at ICLR 2025 (Top 5%)** 

Contrast with Aggregation: A Scalable Framework for Multi-View Representation Learning

HyeongJoo Hwang, Young Jin Ahn, Heesan Kong, Seokin Seo, Seunghoon Hong, Kee-Eung Kim.

**Under Review at ICLR 2025 (Top 30%)** 

#### RESEARCH EXPERIENCES

#### **Principal Investigator**

September – November 2022

Personal Identifiable Information Filtering National R&D Project funded by the Ministry of Science and ICT.

- Managed \$150,000 research fund and gathered research participants.
- Provided annotation guidelines for the privacy benchmark dataset to data labeling companies.

Research Intern

July – August 2022

Department of Computer Science, College of Computing, Yonsei University (Advisor: Dokyung Song)

• Implemented membership inference attack methods on large language models (LLMs) and CNNs.

Research Intern January – April 2023

Department of Artificial Intelligence, College of Computing, Yonsei University (Advisor: Jonghyun Choi)

• Found failure cases of masked reconstruction models in recognizing homophones and proposed SyncVSR.

#### PROJECT EXPERIENCES

# Multimodal Question Answering with Chest X-ray Images | GitHub

*March* 2024 – *June* 2024

Reliable question answering based on SQL queries, X-ray images and text health records.

- Reported first positive Reliability Score in the EHRXQA benchmark, minimizing false positives.
- Trained Multimodal Masked Autoencoder (M3AE) from scratch on 650K radiographs and text pairs.

#### **DotNeuralNet & DotT5** | GitHub | Demo

March 2023

Optical braille recognition in the wild to natural language translation.

- Introduced the first annotated braille dataset in the wild labeled with a custom multi label classification model.
- Trained a light-weight optical braille recognition model and connected to a custom LLM with BLEU score of 0.75.

#### **KoDALLE:** Text to Fashion | <u>GitHub</u>

November 2021 – January 2022

Generating dress outfit images based on given input prompt.

- Resolved data scarcity of target language with pretrained language model's embedding for training DALLE.
- Preprocessed and maintained versions of 1 million pairs of image-caption dataset.

#### **COMPETITIONS**

# NIPA, Machine Reading Comprehension Competition | GitHub

*June – July 2022* 

(2<sup>nd</sup> / 26 companies) Extractive question answering task in constrained computational resources and time limits.

#### Ministry of Statistics, Korean Standard Industry Classification

April 2022

(7<sup>th</sup> / 311 teams) Sequence classification task for classifying 200 industry categories and sub-categories.

# Dacon, KLUE Natural Language Inference Competition | GitHub

January 2022

(1st / 468 teams) Utilized typed-marker and selective sentence pooling approaches for finetuning RoBERTa.

#### Dacon, Code Clone Detection Competition | GitHub

June 2022

 $(3^{rd}/337)$  teams) Identified code similarity by ensembling encoders pretrained on disjoint datasets.

# Dacon, Stock Price Prediction Competition | GitHub

September 2021

(6<sup>th</sup> / 205 teams) Predicted the closing price of 376 public companies with ML algorithms trained on financial data.

# Selectstar & NIA, Corpus Proposal Competition | GitHub

September 2019 – March 2020

 $3^{rd}$  place for planning and collecting multimodal dataset consisted with emotional Instagram posts.

#### OPENSOURCE CONTRIBUTIONS

#### docker/docker.github.io | Pull Request

March – April 2020

Source repo for Docker's official documentation.

• Updated PostgreSQL initialization guideline in "Quickstart: Dockerizing Django" documentation.

# NVlabs/stylegan2-ada-pytorch | Pull Request

November 2021

Source repo of NVIDIA research for StyleGAN2-ADA.

• Fixed torch version comparison fallback error.

#### WEB PROJECTS

## yonsei.exchange | GitHub | Website

July 2020 – Present

22,000 pageviews & average retention time 3 min+, website with summaries for 100 universities to study abroad.

- Collected and preprocessed students' text review data from the web.
- Visualized department distribution and weather information.
- Ranked the satisfaction level of students for each university with custom masked language model.

# **TECHNICAL SKILLS**

**Languages** Python, R, JavaScript (\* in the order of fluency)

Libraries PyTorch, JAX, Flax, Transformers, PyTorch Lightning, OpenCV, Docker, Django

# LANGUAGE SKILLS

Korean Native

English Fluent, TOEFL iBT 110/120, served as a platoon leader at USANEC-Casey in the US Army

Chinese Novice, HSK 4

# HONORS AND AWARDS

Academic Honors, Yonsei University

*Spring*, 2015

## LEADERSHIP AND SERVICE

Founder & leader of Yonsei Indoor Bouldering Club	February 2022 – December 2022
Academic support for North Korean refugee students, 80+ hours	September 2015 – April 2016
Quantitative finance leader in Yonsei Investment Group	<i>June</i> 2021 – <i>December</i> 2021
Yonsei Vision Up academic support for high school students	March – December 2016
Military service for Republic of Korea, Senior KATUSA	<i>September 2017 – May 2019</i>