

Takyoung Kim

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INTERESTS	Conversational AI, Real-world Evaluation, NLP, Machine Learning	
EDUCATION	Korea University , Seoul, Korea	Sept. 2020 – Aug. 2022
	<ul style="list-style-type: none">▪ M.S. in Industrial & Management Engineering<ul style="list-style-type: none">• Data Science & Business Analytics Lab. (Advisor: Pilsung Kang)• Thesis: <i>Relaxing unrealistic assumptions of dataset and evaluation metric in dialogue state tracking</i>	
	Sungkyunkwan University , Seoul, Korea	Mar. 2013 – Aug. 2020
WORK EXPERIENCE	NAVER AI Lab , Seongnam, Korea	
	July 2022 – Present	
	<ul style="list-style-type: none">▪ Research intern at Language Research team (Mentor: Sungdong Kim)	
PUBLICATIONS	J: Journal, C: Conference, W: Workshop, P: Preprint / In Progress	
	<p>[C1] Takyoung Kim, Hoonsang Yoon, Yookyung Lee, Pilsung Kang, and Misuk Kim. “Mismatch between Multi-turn Dialogue and its Evaluation Metric in Dialogue State Tracking.” In <i>Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers)</i>, pages 297–309, Dublin, Ireland. Association for Computational Linguistics. 2022. [paper] [slide] [video]</p> <p>[J1] Takyoung Kim, Jina Kim, Hyeongwon Kang, Subin Kim, and Pilsung Kang. “Building an Integrated Framework of Korean Text Summarization and Text-to-Speech.” In <i>Journal of Korean Institute of Industrial Engineers</i>, 48(1), 80-90. 2022. [paper] [code] [demo]</p>	
	PREPRINT & WORK IN PROGRESS	
	<p>[P2] Yookyung Lee, Takyoung Kim, Hoonsang Yoon, Pilsung Kang, Junseong Bang, and Misuk Kim. “DSTEa: Improving Dialogue State Tracking via Entity Adaptive Pre-training.” <i>arXiv preprint</i>. 2022. [paper]</p> <p>[P1] Takyoung Kim, Yookyung Lee, Hoonsang Yoon, Pilsung Kang, Junseong Bang, and Misuk Kim. “Oh My Mistake!: Toward Realistic Dialogue State Tracking including Turnback Utterances.” <i>arXiv preprint</i>. 2022. [paper]</p>	
PRESENTATIONS & TALKS	<p>[4] Yookyung Lee, Takyoung Kim, Hoonsang Yoon, Misuk Kim, and Pilsung Kang. “Entity-based Pre-Training for Dialogue State Tracking.” In <i>Korean Institute of Industrial Engineers Conference (Spring)</i>. 2022.</p> <p>[3] Takyoung Kim, Yookyung Lee, Hoonsang Yoon, Pilsung Kang, and Misuk Kim. “Toward Realistic Dialogue State Tracking including Turnback Utterances.” In <i>Korean Institute of Industrial Engineers Conference (Fall)</i>. 2021.</p> <p>[2] Takyoung Kim, Junghoon Lee, and Pilsung Kang. “Selective Masking for Task-Adaptive Pre-Training.” In <i>Korean Institute of Industrial Engineers Conference (Spring)</i>. 2021.</p> <p>[1] Subin Kim, Jina Kim, Takyoung Kim, Hyeongwon Kang, and Pilsung Kang. “Building an Integrated Framework of Korean Text Summarization and Voice Synthesis.” In <i>Korean Institute of Industrial Engineers Conference (Spring)</i>. 2021.</p>	

INDUSTRIAL PROJECTS

Graduate research assistant advised by Prof. Pilsung Kang [[portfolio](#)]

Predicting Customer Satisfaction with Vehicle Purchase

Oct. 2021 – June 2022

- Granted by [Hyundai Motors](#)
- Retrieved similar car types based on car dimension information
- Constructed explainable sentiment analysis model based on online vehicle document

Multi-turn & Multi-domain Dialogue State Tracking

Apr. 2021 – June 2022

- Granted by [Electronics and Telecommunications Research Institute \(ETRI\)](#)
- Applied users' decision changing situation during conversation to existing dataset
- Pointed out limitations of current evaluation metrics and suggested complementary metric

Korean News Document Summarization

Mar. 2021 – June 2021

- Granted by [Bflysoft](#)
- Applied news-oriented task-adaptive pretraining to Korean BART summarization model

Wave Height Estimation using Raw Ocean Images

Dec. 2020 – Mar. 2021

- Granted by [Daewoo Shipbuilding & Marine Engineering \(DSME\)](#)
- Developed convolutional LSTM-based noisy wave height estimation model

Document Summarization AI Dataset Construction

July 2020 – Dec. 2020

- Granted by [National Information Society Agency \(NIA\)](#)
- Publicly released 800,000 Korean abstractive/extractive summarization dataset
- Organized competition using constructed dataset (at Dacon; Korean version of Kaggle)

Video DeepFake Detection

Feb. 2020 – Aug. 2020

- Granted by [National Research Foundation of Korea \(NRF\)](#)
- Participated as undergraduate internship in Korea University
- Designed convolutional LSTM model reflecting optical flow of video benchmarks

TEACHING EXPERIENCE

Head Teaching Assistant, Industrial ML class @ LG Electronics

Jan. 2022 – Apr. 2022

Project Assistant, Research mentoring @ Hyundai Mobis

July 2021 – Sept. 2021

Teaching Assistant, Industrial ML class @ LG Innotek & SK Hynix

July 2021 – Aug. 2021

AWARDS & HONORS

Best Feedback Award, Research Ideation Contest, Korea Univ.

Feb. 2021, Dec. 2021

2nd Place (2,500\$), MyData Acting Hackathon, Ministry of Science and ICT

Oct. 2019

Merit-based Scholarship, Sungkyunkwan Univ.

Spring 2018, Fall 2018

SERVICES

Reviewer @ NeurIPS 2022 Datasets and Benchmarks

LANGUAGES AND SKILLS

Native in **Korean** and Full Professional **English**

Languages Python, Java, HTML/CSS, Javascript, R

Libraries PyTorch, PyTorch-Lightning, Huggingface, WandB, Hydra, Faiss, Gradio

Others Docker, Linux, L^AT_EX

[Last Update: 2022-08-30]