# SangYeon Cho

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🟥 Master of Science in Engineering @ Department of AI, Chung-Ang University, Seoul 06964, Republic of Korea

### Welcome!

### "Let's do my best rather than be the best."

Hello, I'm Cho Sangyeon. I am currently a master's degrees at Chung-Ang University in Korea. I am interested in the fields of machine learning and deep learning engineers.

### Research Interests \_\_\_\_\_

- · Deep Learning
- Natural Language Processing
- Knowledge Distillation
- Multi-modal Representation Learning

### **Education**

### MS Chung-Ang Univ, Al Engineering

2023.03 - 2025.02

- Coursework: Multi-modal Learning, Knowledge Distillation
- Advisor: Prof. Jungyeong Kim(Labs ☑)
- Graduation Thesis

#### **BS** Kookmin Univ, Software Engineering

2017.03 - 2023.02

- · Coursework: Algorithms, Data Structure, Artificial Intelligence
- Graduation Work

### **Publications**

### Improving Multimodal Data Quality with Unified Filtering Score (UF-Score)

2024.12

Sangyeon Cho, Mingi Kim, Hwang JinKwon, Jaehoon Go, Junyeong Kim\*

Association for the Advancement of Artificial Intelligence (AAAI) GoodData, 2025

## Multi2Cap: Improving Automated Audio Captioning with Cross-modal Feature Distillation and Large Language Model

2024.11 Under Review

Sangyeon Cho, Jangyeong Jeon, Mingi Kim, Jaeho Han, Junyeong Kim\*

Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL), 2025

### Synergy-CLIP: Extending CLIP with Multi-modal Integration for Robust Representation Learning

2024.09 Under Review

 $\textbf{\textit{Sangyeon Cho}}, \textbf{\textit{Jangyeong Jeon}}, \textbf{\textit{Mingi Kim}}, \textbf{\textit{Junyeong Kim}}^{\star}$ 

IEEE ACCESS, 2024

### BioBridge: Unified Bio-Embedding with Bridging Modality in Code-Switched EMR

2024.08

 ${\sf Jangyeong\,Jeon}, \textbf{\textit{Sangyeon Cho}}, {\sf Dongjoon\,Lee}, {\sf Changhee\,Lee}, {\sf Junyeong\,Kim^*}$ 

IEEE ACCESS, Volumn 12, 2024

DSG-KD: Knowledge Distillation from Domain-Specific to General Language Models Sangyeon Cho, Jangyeong Jeon, Dongjoon Lee, Changhee Lee, Junyeong Kim* IEEE ACCESS, Volumn 12, 2024 🗹	2024.08
ConCSE: Unified Contrastive Learning and Augmentation for Code-Switched Embeddings Jangyeong Jeon, <i>Sangyeon Cho</i> , Minuk Ma, Junyeong Kim* IEEE International Conference on Pattern Recognition (ICPR) ☑	2024.07
A pediatric emergency prediction model using natural language process in the pediatric emergency department  Arum Choi, Chohee Kim, Jisu Ryoo, Jangyeong Jeon, Sangyeon Cho, Dongjoon Lee, Junyeong Kim, Changhee Lee*, Woori Bae*  Nature Scientific Reports, 2024	2024.06
Experience	
<ul> <li>Lablup Inc., AI Research Assistants</li> <li>Contribute to the research team</li> <li>Developed ground truth data pre-processing module</li> <li>Predictive modeling of respiratory infectious disease transmission risk based on ground truth data of droplet spread</li> <li>Data augmentation modeling using GAN</li> <li>Seminar LINK ☑</li> </ul>	Seoul, Korea 2022.06 – 2022.09
Projects	
<ul> <li>119 Intelligent report reception voice recognition data construction</li> <li>building data pre-processing and analytics pipeline for speech recognition</li> <li>modeling dispatch decision-making for decision aids for guard officers</li> <li>Tools Used: Pyhon, SQL</li> </ul>	2023.09 - 2024.09
<ul> <li>Emergency and Critical Patient Classification Using EMR Data</li> <li>Designed a model to classify emergency and critical patients using emergency department EMR data.</li> <li>Pre-trained the language model using clinical notes collected from real hospitals.</li> <li>we additionally utilize clinical note (text) information to utilize the most potential information.</li> <li>By combining tabular encoder and text encoder at the embedding level, we achieved better performance than existing models.</li> </ul>	2023.04 - 2024.09
<ul> <li>Optical Character Recognition (OCR) model improvements</li> <li>Al Competition Organized by Software Center University</li> <li>Using Pororo as a baseline, we improved it by utilizing data augmentation and adding the Mix-Style module.</li> <li>As a result, the team ranked at the top of the leaderboard and won an honorable mention.</li> <li>Presentation LINK </li> </ul>	2022.09 - 2023.02
<ul> <li>Al speakers for seniors living alone</li> <li>Designing an Al speaker that analyzes the emotions of seniors living alone and alerts their caregivers</li> <li>Responsible for designing/training deep learning models</li> <li>We used two models: Sentiment Classification Model and Sentiment Conversation Model.</li> </ul>	2022.03 - 2022.06

• Github LINK

### **Research on Meta-Learning Improvement**

- Studying/implementing meta-learning in general
- Considered how to improve Model-Agnostic Meta-Learning (MAML) under the guidance of a professor
- Conducted research on applying MAML to natural language processing by combining it with pruning and knowledge distillation

### **Research on Improving Information Security Behavior**

2020.10 - 2022.04

- Developing a framework to guide better information security compliance behavior in the enterprise
- Teach principal investigators programming fundamentals
- Teach principal investigators on machine learning and deep learning concepts

### Awards & Honors \_\_\_\_\_

### **Awards**

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	IEIE Summer Conference, Encouragement Award	2024.06
	SW-focused University Collaborative AI Competition, Encouragement Award	2022.09
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	Merit Scholarships	2022.09
	Merit Scholarships	2022.03
	S&T Foundation Scholarships	2022.02

### Technologies \_\_\_\_\_

Languages: Python, C/C++, C#, Java, SQL, Scala

Credentials: ADsP