

Suwan Yoon

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Research Interest

I'm Suwan Yoon, a graduate student in the M.S./Ph.D. integrated course at Korea University, and I am currently working at the Actionable Intelligence Laboratory led by Prof. Changhee Lee.

My work centers on:

- AI4Healthcare
- AI4Science
- LLMs

I also enjoy exploring theoretical areas, such as Optimal Transport & Generative Modeling.

My previous work has centered on time-series analysis, visual language models, multimodal VAEs, and knowledge distillation.

Education

Korea University, M.S./Ph.D. integrated course in Artificial Intelligence Mar 2026 – current

- GPA: -/4.5 (Major : -/4.5)
- **Coursework:** (Advanced) Generative Models, ...

Chung-Ang University, BS in Artificial Intelligence Mar 2022 – Feb 2026

- GPA: 4.19/4.5 (Major : 4.29/4.5)
- **Coursework:** Linear Algebra, Algorithm, Pattern Recognition, Machine Learning, Neural Network, Image/Natural Language/Speech Processing...

Experience

Research Intern, Actionable Intelligence Lab @Korea University – Seoul, korea Sep 2024 – Feb 2026
(led by Prof. Changhee Lee)

- In collaboration with ETRI, we built Time Series Forecasting models for Proactive Handover.
- In collaboration with Severance Hospital, we analyzed Lifelog data from insomnia patients.
- I followed up on machine learning and deep learning papers and studied the Stochastic Differential Equations.

Research Intern, Decision Intelligence Lab @CAU – Seoul, korea Jan 2024 – Aug 2024
(led by Prof. Changhee Lee)

- I studied machine learning and deep learning (CS4780).
- I researched a deep learning-based time-series forecasting model in the medical field.

Publications(Top-Tier Conference)

ToDi: Token-wise Distillation via Fine-Grained Divergence Control OCT 2025

(EMNLP 2025 Main, **Oral**)

Seongryong Jung, **Suwan Yoon**, DongGeon Kim, Hwanhee Lee

+ Outstanding Paper Award Nominee (only **75/1811** papers nominated),

+ Overall Rating: 4/5,

+ SAC : 9/10 (top **15%** of accepted papers)

10.48550/arXiv.2505.16297

Publications(Conference)

Towards Speed-Agnostic Time-Series Forecasting for Proactive Handover OCT 2025

(ICTC 2025, **Oral**)

Junseo Lee*, **Suwan Yoon***, Changhee Lee

IMMU : IMage to MUsic Sequence for Social Network Service

OCT 2024

(DCSC Fall 2024 *Student Paper Award, Silver Prize*)

Minsung Kim*, Taehwan Kim*, *Suwan Yoon**, Kisung Lee

Publications(Preprint)

Localizing Input Uncertainty Quantification for Large Language Models via Shapley Values

May 2026

Seongjun Lee*, *Suwan Yoon**, Changhee Lee

arXiv.2605.28170

Agentic Molecular Recovery via Molecule-Aware Exploration

May 2026

Suwan Yoon, Changhee Lee

Preprint

* *Equal contribution.*

Projects

[Research] Collaboration w/ETRI

2025.01 to .12

- Time-series forecasting for proactive mobile-device handover. Developing a domain-agnostic model robust to speed prediction under changing environments, cell-deployment-agnostic approaches invariant to feature permutation and resilient to missing features. This project was presented at ICTC 2025.
- Keyword: Time Series Forecasting, Wireless Communications, ETRI

[Research] Research on Embedding Space of VLM

2025.03 to .07

- Collaborated with Prof. Junhyuk Kim (CAU) on VLM for semantic segmentation. Proposed two novel losses (HNS, UAI) for fine-tuning CLIP and one metric (Unmix Rate) for evaluating CLIP Zero-shot semantic segmentation. Achieved ****State-of-the-Art**** on CLIP ZS3 task. This project was presented at CAU Engineering Conference 2025.
- Keyword: VLM, ZS3, Computer Vision

KYS(Keep Your Smile!)

[Link](#)

- Facial Emotion Recognition on Jetson Nano, optimized via pruning and quantization. Reports performance degradation trends caused by model compression on edge devices. This project was presented at DCSC Fall 2025.
- Keyword: Embedded AI, Model Pruning, Quantization

RepHeat

[Link](#)

- A routine timer app that visualizes daily repetitions as a heat map to motivate users. Built with Flutter.
- Keyword: Flutter

IMMU: Social Network Service with IMage to MUsic Sequence

[Link](#)

- Transforms images into music using Riffusion (diffusion-based), BLIP (image captioning), and GPT-3 (sentence generation). This project was presented at DCSC Fall 2024 and CCSSAA Idea-thon 2023.
- Keyword: Image Captioning, Generative AI, Flutter

Scholarship/Awards

2023 CCSSAA idea-ton: Third Prize (700,000 KRW)

2024 DCS Students Paper Awards Silver Prize

2025 The 1st Sem. of Junior Department Honor Scholarship: Full-Funded

2025 CAU Engineering Conference Software University President's Award (400,000 KRW)

Leadership

LAON (Live at Our Night), Student Band, Department of AI, Chung-Ang University
Founder and Leader
Founded the student band and led the planning and execution of four performances.

Nov 2023 – Feb 2026

Technologies

Languages: Python, C, Java, Flutter ...

ML Library: Pytorch, Numpy, Pandas, Sci-Kit Learn, Matplotlib, Seaborn, Docker ...