



Data AI Lab

Seoul National University

Department of Computer Science and Engineering

Data-Centric AI for Real-World Challenges

da.snu.ac.kr

About the Lab

We are committed to uncovering data-centric solutions to complex, real-world challenges by harnessing the power of artificial intelligence. Our research areas span a multitude of problem levels, from application-based solutions to theoretical constructs within machine learning and probabilistic inference.



Graph Neural Networks

Methods for learning on structured and relational data



Time Series Analysis

Forecasting and anomaly detection in temporal data



Recommender Systems

Collaborative filtering and user modeling



Anomaly Detection

Self-supervised and unsupervised approaches

Principal Investigator

Prof. Jaemin Yoo

Assistant Professor, Dept. of Computer Science and Engineering, SNU

Education

Ph.D. in Computer Science, SNU (2022)

Postdoc

Carnegie Mellon University (2022–2023)

Previous

Assistant Professor, KAIST EE (2023–2026)

Fellowships

Google PhD Fellowship, Qualcomm Innovation Fellowship

Honors

S-OIL Outstanding Dissertation Award, Youlchon AI Star Award

Service

Area Chair: KDD, ICML, CIKM

Research Areas

01

Tabular Foundation Models

One pre-trained model for many tabular datasets with heterogeneous features and/or missing observations.

02

Graph Neural Networks & Mining

Node/graph classification, graph attention, hypergraph analysis, and scalable graph learning methods.

03

Time Series & Anomaly Detection

Self-supervised anomaly detection, time series forecasting, stock movement prediction, and self-tuning methods.

04

Recommender Systems

Collaborative filtering with graph signals, multi-criteria recommendation, and socially-aware user modeling.

Selected Publications

WWW 2026

PULSE: Socially-Aware User Representation Modeling Toward Parameter-Efficient Graph Collaborative Filtering

NeurIPS 2025

Parameter-Free Hypergraph Neural Network for Few-Shot Node Classification

ICML 2025

Aggregation Buffer: Revisiting DropEdge with a New Parameter Block

KDD 2025

Self-Tuning Self-Supervised Image Anomaly Detection

KDD 2023

Less is More: SlimG for Accurate, Robust, and Interpretable Graph Mining

KDD 2022

Accurate Node Feature Estimation with Structured Variational Graph Autoencoder

WWW 2022

Model-Agnostic Augmentation for Accurate Graph Classification

... and 30+ more papers at KDD, ICML, NeurIPS, WWW, AAAI, ICLR, ICDM, SDM, and more.



Awards & Recognition

2025

Distinguished PC Member, ECML PKDD

2020

Qualcomm Innovation Fellowship

2022

S-OIL Outstanding Dissertation Award

2020

Youlchon AI Star Award

2021

Best-Ranked Paper, ICDM 2021

2019

Google PhD Fellowship

2021

BK21 Outstanding Graduate Student Award

2019

Samsung HumanTech Paper Award

Join Us!

We are looking for talented and motivated students passionate about data mining, machine learning, and AI research.



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