

# Youngeun Nam

Motto: “Irreplaceable”

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## RESEARCH INTEREST

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Data Analysis, Machine Learning, Time Series, Anomaly Detection, Multi-Modal Learning, Networked TS

## EDUCATION

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Korea Advanced Institute of Science and Technology (KAIST)

Ph.D. in School of Computing

Mar. 2022 – Feb. 2026(expected)

Advisor: Jae-Gil Lee

Korea Advanced Institute of Science and Technology (KAIST)

M.S. in Industrial and System Engineering (Graduate School of Data Science)

Mar. 2020 – Feb. 2022

Advisor: Jae-Gil Lee

Pohang University of Science and Technology (POSTECH)

B.S. in Industrial and Management Engineering

Mar. 2013 – Feb. 2017

*Cum Laude*

## PUBLICATIONS

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### Conferences

[9] Bae, M., Shin, Y., **Nam, Y.**, Lee, Y., and Lee, J., “*Semi-Supervised Learning for Time Series Collected at a Low Sampling Rate*”. Proceedings of the 30th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD), Barcelona, Spain, 2024.

[8] **Nam, Y.**, Yoon, S., Shin, Y., Bae, M., Song, H., Lee, J., and Lee, B. S., “*Breaking the Time-Frequency Granularity Discrepancy in Time-Series Anomaly Detection*”. International World Wide Web Conference (WWW), Singapore, Singapore, 2024.

[7] **Nam, Y.**, Trirat, P., Kim, T., Lee, Y., and Lee, J. “*Context-Aware Deep Time-Series Decomposition for Anomaly Detection in Businesses*”. Proceedings of European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), Torino, Italy, 2023.

[6] Shin, H., Kang, J., Akbar, I., Choi, S., **Nam, Y.**, Lee, J. “*An Empirical Investigation of Deep Learning Models for Defect Classification in Solar Cells Electroluminescence*”. Korea Computer Congress, 2023.

[5] {Trirat, P., **Nam, Y.**}, Kim, T., and Lee, J. “*AnoViz: A Visual Inspection Tool of Anomalies in Multivariate Time Series*”. The Thirty-Seventh AAAI Conference on Artificial Intelligence (Demonstration Program), Washington, DC, 2023.

[4] Kim, D., Min, H., **Nam, Y.**, Song, H., Yoon, S., Kim, M., Lee, J. “*COVID-EENet: Predicting Fine-Grained Impact of COVID-19 on Local Economies*”. The Thirty-Sixth AAAI Conference on Artificial Intelligence, Virtual Event, 2022.

[3] Na, J., Kang, J., Bae, M., **Nam, Y.**, Lee, J. “*Vessel Trajectory Periodic Pattern Mining by Using AIS Data*”. Korea Computer Congress, 2021.

[2] **Nam, Y.**, Kang, J., Lee, J. “*ActiveBoostThief: Model Extraction Attack Using Reliable Active Learning*”. Korea Computer Congress, 2021.

[1] Kim, M., Kang, J., Kim, D., Song, H., Min, H., **Nam, Y.**, Park, D. Lee, J. “*Hi-COVIDNet: Deep Learning Approach to Predict Inbound COVID-19 Patients and Case Study in South Korea*”. Proceedings of the 26th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD), Virtual Event, California, 2020.

## ACADEMIC EXPERIENCE

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### Research Internship

Data Mining Lab	Seoul National University
Advisor: Sungzoon Cho	Aug. 2018 – Jul. 2018

Experience Design & Engineering Lab	POSTECH
Advisor: Sungho Han	Sep. 2015 – Dec. 2015

### Activities

Management Strategy Student Association (MSSA)	POSTECH
Sponsor: 3M Korea, POSCO	Sep. 2014 – Dec. 2016

Future Industrial Engineering Leaders and Dreamers (FIELD Camp)	Korea University
Competition Silver Award	Aug. 2014

International Conference for the Integration of Science, Technology and Society	KAIST
ICIST-KAIST Delegates	Aug. 2014

### Teaching Assistant

[CS360] Introduction to Database	KAIST
Advisor: Jae-Gil Lee	Sep. 2023 – Dec. 2023

[CS564] Data Science Methodology	KAIST
Advisor: Jae-Gil Lee	Mar. 2023 – Jun. 2023
<i>(Outstanding Teaching Assistant Award)</i>	

[CS564] Data Science Methodology	KAIST
Advisor: Jae-Gil Lee	Sep. 2022 – Dec. 2022

[CS492(D)] Special Topics in Computer Science<Introduction to Data Science>	KAIST
Advisor: Jae-Gil Lee	Mar. 2022 – Jun. 2022

## WORK EXPERIENCE

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Data Analyst, Fitogether Inc.

*Sep. 2018 – Nov. 2019*

Software Engineer, Hyundai Autoever

*Jan. 2017 – Dec. 2017*

## OTHER EXPERIENCE

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Mentor, Hyoam High School Program

*Jul. 2021*

SHOOTART Women's Futsal Club

*Jan. 2017 – Present*

SAMSUNG Dream Class Mentor

*Jul. 2016 – Aug. 2016*

RC Volunteers

*Mar. 2016 – Dec. 2016*

POSTECH Residential College Residential Advisor

*Feb. 2016 – Dec. 2016*

16<sup>th</sup> LS University Students Overseas Volunteers

*Jul. 2015 – Sep. 2015*

Mentor, Hyoam High School Program

*Jul. 2015*

President of the Female Student Council

*Jan. 2015 – Dec. 2015*

Exchange Students, Korea National University of Arts

*Jun. 2014, Dec. 2015*

Busking (Keyboard) in Seoul

*Jan. 2014*

Hong Kong Toys & Games Fair 2013 Exhibitor

*Jan. 2013*

## PROJECTS

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### Research Projects

Samsung Mobile Experience

KAIST

- Few-shot Anomaly Detection and Root Cause Estimation development

*Jul. 2022 – Jul. 2023*

Samsung Mobile Experience

KAIST

- Real-time service incident prediction development

*Jun. 2021 – Jun. 2022*

Samsung SDS

Seoul National University

- Storage-based platform model business idea research project
- Platform proposal that provides new value to storage consumers

*Aug. 2018 – Jul. 2018*

Hyundai Card/Capital/Commercial

Hyundai Autoever

- Hyundai Card/Capital/Commercial Blockchain Platform Construction and Service Task

*Jun. 2017 – Dec. 2017*

### Course Projects

[CS575] AI Ethics

KAIST

- Solving the Bias in Social Attitude Problem of News Recommendation System

*Spring 2022*

[CS470] Introduction to Artificial Intelligence

KAIST

- Unsupervised Anomaly Detection in Time Series with Temporal Context

*Spring 2022*

[CS570] Artificial Intelligence and Machine Learning

KAIST

- Time-series anomaly detection via multiresolution ensemble learning

*Spring 2021*

[KSE526] Analytical Methodologies for Big Data

KAIST

- WAD: Anomaly detection for ECG data using CNN improved by Wavelet analysis

*Fall 2020*

**AWARDS AND HONORS**

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School of Computing, KAIST, Outstanding Teaching Assistant Award, 2023 Spring	2023
The Thirty-Seventh AAAI Conference on Artificial Intelligence Scholarship, 2023 (\$500)	2023
Department of Industrial & Systems Engineering, KAIST, Scholarship, 2021 (₩1,000,000)	2021
FIELD Silver Award, Future Industrial Engineering Leaders and Dreamers Camp	2016

**PROGRAMMING SKILLS**

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Python(Intermediate), R(Intermediate), Excel(Intermediate), C(Basic), C++(Basic), Java(Basic)