Youngeun Nam

Motto: "Irreplaceable"
Mar 12, 2024

Mobile: +82-10-9596-0615
E-mail: youngeun.nam@kaist.ac.kr

RESEARCH INTEREST

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

EDUCATION

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

Conferences

[1] **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.

[2] **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.

[3] 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.

[4] {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.

[5] 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.

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

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

[8] 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

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*
(Outstanding Teaching Assistant Award)

[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

Data Analyst, Fitogether Inc.   *Sep. 2018 – Nov. 2019*
Software Engineer, Hyundai Autoever   *Jan. 2017 – Dec. 2017*

OTHER EXPERIENCE

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*
16th 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

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   *Aug. 2018 – Jul. 2018*
- Platform proposal that provides new value to storage consumers

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*

[CS548] Advanced Information Security   KAIST
- Black-box attack using active learning   *Fall 2020*

AWARDS AND HONORS

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

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