

# Yongjae Lee

 [yongzzai1102@gmail.com](mailto:yongzzai1102@gmail.com)  [Personal Website](#)  [Linkedin](#)  [GitHub](#)  [Google Scholar](#)

## Biography

Yongjae Lee is a master's candidate in Industrial Data Science & Engineering at Pusan National University, Republic of Korea. His research interests include business process management and data science. He received his bachelor's degree in Industrial Engineering from Pusan National University in 2024. He is currently developing deep learning architectures for business process management.

## Education

<b>Pusan National University</b> <i>Bachelor's in Industrial Engineering</i>	2018.03 ~ 2024.02
<b>Pusan National University</b> <i>Master's in Industrial Data Science &amp; Engineering</i> <i>Supervisor: Prof. Hyerim Bae</i>	2024.03 ~ present

## Projects

<b>[Research] A Study on the XPL (eXplainable Process Learning)</b> • Developed an AI-based process mining methodology to create an automation tool capable of process monitoring, detection, analysis, and improvement. • Main Developer	2023.03 ~ present
<b>[Industrial] Development of Process Mining and AI-based Affectionate Intelligence Technology for Customer-Specific Behavior Modeling (with LG Electronics)</b> • Developed a methodology for managing the customer's product usage process. • Main Developer	2024.03 ~ present
<b>[Research] Human Centered – Carbon Neutral Global Supply Chain Research</b> • Developed a core technology for building an ecosystem that prioritizes safety and environmental sustainability across an integrated supply chain • Sub-Developer	2023.06 ~ 2025.02

## Teaching Experience

<b>[External] Teaching Assistant, LG Electronics</b> • LG Electronics Process Mining Term Project Guidance (3 <sup>rd</sup> Prize) • Title: Customer Claim Analysis System with Interface using RAG	2025.06 ~ 2025.07
<b>[External] Teaching and Practicum Assistant, LG Electronics</b> • Process Mining Classroom Training for LG Electronics (Supported by Celonis)	2025.06
<b>[External] Teaching and Practicum Assistant, LG Electronics</b> • Process Mining Classroom Training for LG Electronics	2024.06
<b>[Academic] Teaching and Practicum Assistant, Pusan National University</b> • Data Structures and Algorithms for Undergraduates	2024.03 ~ 2024.07

## Awards

<b>Grand Prize</b> • PNU Industrial Artificial Intelligence Competition	2023.08
<b>Grand Prize</b> • Graduation Project in Industrial Engineering, Pusan National University	2023.02

## Conference

---

*Only if the first author and presenter*

- [KIIIE] Korea Institute of Industrial Engineers 2025 Fall Conference 2025.11
  - Title: DHIM: A Dual-Modality Hierarchical Network for Multi-Perspective Business Process Anomaly Detection
- [BPM 2025] The 23<sup>rd</sup> International Conference on Business Process Management 2025.09
  - Main Track
  - Title: Multi-task Trained Graph Neural Network for Business Process Anomaly Detection with a Limited Number of Labeled Anomalies
- [ICPR28] The 28<sup>th</sup> International Conference on Production Research 2025.07
  - Title: Process-Aware Prediction of Procurement Lead Time for Shipyard Delay Mitigation
- [LOGMS2023] The 11<sup>th</sup> International Conference on Logistics and Maritime Systems 2023.09
  - Title: Import Container Dwell Time: Analysis of Determinant Factors with Explainable Artificial Intelligence

## Publications

---

*Excluding Korean Publications*

- [1] Reasoning-Aware GRPO using Process Mining 2025.10  
Taekhyun Park, **Yongjae Lee (co-first)**, Hyerim Bae  
*arXiv preprint (Planned for ICML2026 submission)*
- [2] Multi-task Trained Graph Neural Network for Business Process Anomaly Detection with a Limited Number of Labeled Anomalies 2025.08  
**Yongjae Lee**, Dohee Kim, Donghwan Kim, Hyerim Bae  
*Lecture Notes in Computer Science*
- [3] Identifying Key Factors influencing Import Container Dwell Time using eXplainble Artificial Intelligence 2024.12  
**Yongjae Lee**, Kikun Park, Hyunjae Lee, Jongpyo Son, Seonhwan Kim, Hyerim Bae  
*Maritime Transport Research (IF 3.9)*
- [4] Predictive Process Monitoring for Remaining Time Prediction with Transfer Learning 2024.08  
I.A. Nur, K.I. Mustafa, R.M. Hanif, Dohee Kim, **Yongjae Lee**, Hyerim Bae  
*ICIC Express Letters*
- [5] JustDense: Just using Dense instead of Sequence Mixer for Time Series Analysis Accepted  
Taekhyun Park, **Yongjae Lee (co-first)**, Daesan Park, Dohee Kim, Hyerim Bae  
*IEEE International Conference on Big Data 2025*
- [6] Process-Aware Procurement Lead Time Prediction for Shipyard Delay Mitigation Under Review  
**Yongjae Lee**, Eunhee Park, Daesan Park, Dongho Kim, Jongho Choi, Hyerim Bae  
*Submitted to selected papers of international conference on production research*

## Patents

---

- Continual Learning Method and Device with Adaptive Memory Mechanism for Predictive Process Monitoring 2025
  - Hyerim Bae, I.A. Nur, **Yongjae Lee**, Dohee Kim
  - Korean Patent, No.10-2025-0026041

## Tech Stack

---

**Language:** Python, JavaScript  
**Framework:** PyTorch, PyTorch Geometric  
**Simulation:** Siemens Plant Simulation  
**Markup:** Markdown, Latex, HTML, CSS