

# Yongjae Lee

✉ yongzzai1102@gmail.com    🌐 Personal Website    🔗 LinkedIn    🐙 GitHub    🎓 Scholar

## Biography

Yongjae Lee is a Master's candidate in Industrial Data Science & Engineering at the Pusan National University, Republic of Korea. His research interests include Business Process Management, Process Mining, and Data Science. He received his Bachelor's degree in Industrial Engineering from the Pusan National University in 2024. He is currently working on developing deep learning models for process mining and business process management.

## Education

<b>Pusan National University</b> <i>BS in Industrial Engineering</i>	<i>2018.03 – 2024.02</i>
<b>Pusan National University</b> <i>MS in Industrial Data Science &amp; Engineering</i>	<i>2024.03 –</i>

## Projects

<b>A Study on the XPL (eXplainable Process Learning)</b>	<i>2023.03 – 2026.02</i>
<ul style="list-style-type: none"> <li>◦ Developed an AI-based explainable process mining methodology to create an automation tool capable of process monitoring, detection, analysis, and improvement.</li> <li>◦ Tools Used: Python, PyTorch, R</li> </ul>	
<b>Development of Process Mining and AI-based Affectionate Intelligence Technology for Customer-Specific Behavior Modeling (with LG)</b>	<i>2024.03 – 2026.02</i>
<ul style="list-style-type: none"> <li>◦ Developed a methodology for managing the customer's product usage process from a process perspective.</li> <li>◦ Tools Used: Python, PyTorch</li> </ul>	
<b>Human Centered – Carbon Neutral Global Supply Chain Research</b>	<i>2023.06 – 2025.02</i>
<ul style="list-style-type: none"> <li>◦ Developed a core technologies for building an ecosystem that prioritizes safety and environmental sustainability across an integrated supply chain—spanning maritime, port, and land transport.</li> <li>◦ Tools Used: Python, PyTorch</li> </ul>	

## Teaching Experience

<b>Teaching Assistant, Pusan National University</b>	<i>2025.06 – 2025.07</i>
<ul style="list-style-type: none"> <li>◦ LG Electronics Process Mining Term Project Guidance</li> </ul>	
<b>Teaching and Practicum Assistant, Pusan National University</b>	<i>2025.06</i>
<ul style="list-style-type: none"> <li>◦ Process Mining for LG Electronics (supported by Celonis)</li> </ul>	
<b>Teaching and Practicum Assistant, Pusan National University</b>	<i>2024.06</i>
<ul style="list-style-type: none"> <li>◦ Process Mining for LG Electronics</li> </ul>	
<b>Teaching and Practicum Assistant, Pusan National University</b>	<i>2024.03 – 2024.07</i>
<ul style="list-style-type: none"> <li>◦ Data Structures and Algorithms for Undergraduate Students</li> </ul>	

## Awards

<b>Grand Prize</b>	<i>2023.08</i>
<ul style="list-style-type: none"> <li>◦ PNU Industrial Artificial Intelligence Competition</li> </ul>	
<b>Grand Prize</b>	<i>2023.02</i>
<ul style="list-style-type: none"> <li>◦ Graduation Project in Industrial Engineering, Pusan National University</li> </ul>	

## Publications

---

**Identifying Key Factors influencing import container dwell time using eXplainable Artificial Intelligence** 2024.12

*Yongjae Lee*, Kikun Park, Hyunjae Lee, Jongpyo Son, Seonhwan Kim, Hyerim Bae  
[10.1016/j.martra.2024.100116](https://doi.org/10.1016/j.martra.2024.100116) [🔗](#)

**Predictive Process Monitoring for Remaining Time Prediction with Transfer Learning** 2024.08

I.A. Nur, K.I. Mustafa, R.M. Hanif, D. Kim, *Y. Lee*, H. Bae  
[10.24507/icicel.18.08.851](https://doi.org/10.24507/icicel.18.08.851) [🔗](#)

## Conference (As a first author and presenter)

---

**Multi-task trained Graph Neural Network for Business Process Anomaly Detection with a Limited Number of Labeled Anomalies** 2025.09  
23rd International Conference on Business Process Management (BPM 2025)

**Process-Aware Prediction of Procurement Lead Time for Shipyard Delay Mitigation** 2025.07  
The 28th International Conference on Production Research (ICPR 28)

**Import Container Dwell Time: Analysis of Determinant Factors with Explainable Artificial Intelligence** 2023.09  
The 11th International Conference on Logistics and Maritime Systems (LOGMS 2023)

## Patents

---

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

## Technologies

---

**Languages:** Python, JavaScript

**Framework:** PyTorch, PyTorch Geometric, FastAPI

**Simulation:** Siemens Plant Simulation

**Markup:** Markdown,  $\text{\LaTeX}$ , HTML, CSS, XML