

# Taekhyun Park (박택현)

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🌐 Personal Website | 🎓 Google Scholar | 🌐 LinkedIn | 🤖 Hugging Face

## Research Interests

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- **Novel architectures:** JEPA, deep supervision, state space models, and looped LLMs
- **Sequence modeling:** time series, language, video, and event log modeling
- **LLM systems:** process mining with LLMs, RLVR, and agent-based systems

## Education

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**Pusan National University** Mar. 2025 – Present  
*M.S. in Data Science, Graduate School of Data Science*  
– Advisor: Prof. [Hyerim Bae](#)  
Busan, South Korea

**Korea Maritime & Ocean University** Mar. 2019 – Feb. 2025  
*B.S. in Control Engineering*  
– Completed military service in the Republic of Korea Army, Oct. 2020 – Feb. 2022  
Busan, South Korea

## Projects

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**해상교통 환경 특화 대형행동모형 개발을 위한 에이전트 기술 개발** June. 2026 – Present  
*Funded by KRISO*

**프로세스 마이닝을 활용한 고객 사용 패턴 기반 개인화 스마트 운전 로직 개발** Oct. 2025 – Present  
*Funded by LG Electronics*

**이상치 탐지 배원시뮬레이터 개발** Oct. 2025 – Dec. 2025  
*Funded by Samsung Heavy Industries*

**동적 해양사고 시나리오 도출 및 실시간 사고위험 통합지표 기반 조기경보 시스템 개발** Aug. 2025 – Jan. 2026  
*Funded by Pusan National University and RISE*

**인간 중심 - 탄소 중립 글로벌 공급망 연구센터** Mar. 2025 – Feb. 2026  
*Funded by the National Research Foundation of Korea*

## Publications

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### Journal & Inproceedings

[I]**Design and Implementation of an LLM-Based Maritime Risk Scenario Generation System for Vessel Traffic Services** IEEE CASE, 2026  
– Taekhyun Park\*, Sangmin Jo, Dohee Kim, and Hyerim Bae

[J]**LURKER: Language Models for Unveiling Maritime Risks via Knowledge-Driven Event Forecasting and Reasoning** ICIC Express Letters  
– Seongmoon Hong\*, Taekhyun Park, Dohee Kim, Sangmin Jo, and Hyerim Bae

[J]**Identifying Severity of Maritime Accidents Based on Weighted Kernel Density Estimation** ICIC Express Letters  
– Sangmin Jo\*, Dohee Kim, Seongmoon Hong, Taekhyun Park, and Hyerim Bae

[I]**JustDense: Just using Dense instead of Sequence Mixer for Time Series Analysis** IEEE BigData 2025  
– Taekhyun Park\*, Yongjae Lee\*, Daesan Park\*, Dohee Kim, and Hyerim Bae  
– Code

[J]**LA-RCS: LLM-agent-based Robot Control System** Sensors and Materials  
– Taekhyun Park\*, Young-Jun Choi, Seung-Hoon Shin, Chang-Eun Lee, and Kwangil Lee  
– Project Page

## Preprints

- LoopUS: Recasting Pretrained LLMs into Looped Latent Refinement Models** arXiv, 2026  
– Taekhyun Park\*, Yongjae Lee, Dohee Kim, and Hyerim Bae  
– [Project Page](#)
- Rewarding Structural Conformance of Reasoning using Process Mining** arXiv, 2025  
– Yongjae Lee\*, Taekhyun Park\*, and Hyerim Bae  
– [Code](#)
- Generative AI and Machine Learning Collaboration for Container Dwell Time Prediction via Data Standardization** arXiv, 2026  
– Minseop Kim\*, Takhyeong Kim, Taekhyun Park, Hanbyeol Park, and Hyerim Bae
- Application of Large Language Models for Container Throughput Forecasting: Incorporating Contextual Information in Port Logistics** arXiv, 2026  
– Minseop Kim\*, Jaeun Kwon, Hanbyeol Park, Kikun Park, Taekhyun Park, and Hyerim Bae

## Internship

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**DeepLogicChain** Jan. 2024 – Mar. 2024  
*Intern* Seoul, South Korea

## Teaching Experience

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**Pusan National University** Mar. 2025 – Present  
*Teaching Assistant for Data Structures and Algorithms (Undergraduate Course)* Busan, South Korea

## Honors & Awards

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- 부산테크노파크 원장상** 2025  
실시간 데이터 및 해양 규제 융합형 LLM 기반 사고 대응 지원 시스템 K-해양 AI 챌린지
- 레인보우브레인상** 2023  
RAG 및 피드백 기반 AI 기법을 활용한 학교 게시판 검색 AI 시스템 KMOU 캡스톤디자인
- 대상** 2022  
이미지 생성 AI 학습을 위한 P2P 기반 데이터셋 구축 및 AI 소유권 가상자산화 플랫폼 KMOU AI 아이디어 챌린지
- 경남테크노파크 원장상** 2022  
블록체인 기술을 활용한 글쓰기 하이퍼 플랫폼 AI & 블록체인 아이디어 경진대회

## Tech stack

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**Languages:** Python, R, Go, C/C++, Ruby, VHDL, MATLAB, Solidity, Elixir  
**Tools:** CUDA, Triton, PyTorch