Hyunjae Lee







Research Interest

Data Mining, Deep Learning, Reinforcement Learning

EDUCATION

Pusan National University

Expected Graduation date: Aug 2023

May 2017 - present Bachelor at Industrial Engineering (GPA: 4.05/4.5) (Rate: 2/54)

Sep 2020 - present Bachelor at Big Data Interdepartmental Major (Second major)

Work Experience

Bigdata Analytics and Engineering Lab Internship Pusan National University May 2021 - Jun 2023

– 스마트 항만 IoT 인프라 구축 기술 개발 Jun 2021 - Aug 2022

Organized and visualized the data using Excel and Python

- IoT 및 지능정보 기반 동남권 제조 IT 기술 혁신 및 인재 양성 Sep 2021 - Dec 2021

Developed a simple and effective port builder using C# and Unity

인공지능 기반 컨테이너 운임 예측모형 개발 Dec 2021 - Aug 2022

Analyzed and forecasted the Shanghai container freight index(time-series data) & Wrote a paper on feature selection in time-series data

프로세스 자가 재설계 및 최적화를 위한 인공지능 기반 자동화 프로세스 마이닝 연구 Sep 2022 - Jun 2023 Researched real-time object detection & semi-supervised learning from truck images on road CCTV Predicted arrival time, turnaround time, turn time for external container trucks using VBS data

- 차량 반출입예약시스템 해외 항만 적용사례 분석 Nov 2022 - Dec 2022

Researched characteristics of ports that are applied VBS and wrote a document about it

Additional Information

Body Morphometry AI Segmentation Online Challenge in Kaggle [16/27] Jul 2021 - Aug 2021

Developed a kidney segmentation AI model, a BLU-net using U-net twice

Public Big-Data Youth Internship Jul 2021 - Sep 2021

Conducted a project about segmentation between kidney and cancer using Python, Pytorch and Flask

Undergraduate Research Jan 2022 - Feb 2022

Learned theories and techniques about deep learning

Shopping mall sales forecast competition in Dacon [1/1198] Jul 2022 - Aug 2022

Got the **Top Prize** based on clustering with TimeSeriesKMeans in time-series data

Jeonju Public Data Analysis Competition Sep 2022 - Nov 2022

Analyzed the data using QGIS and Python and suggested related policies

Best Award in Capstone Design Organized by IE in Jun 2023, Team Leader

Propose the development of a comprehensive framework including XAI for identifying the key factors that influence the Dwell Time of import containers in container terminals

PUBLICATIONS

컨테이너 운임 지수 예측 요인 연구: 코로나19 이전과 이후 비교

대한산업공학회 춘계공동학술대회 논문집, p2145-2155, Jun 2022, **Published** 이상재, 김도희, 박한별, **이현재**, 이가원, 배혜림

Ensemble method for feature selection in time-series prediction based on image similarity

ICIC Express Letters Part B:Applications, July 2023, Published

Hyunjae Lee, Dohee Kim, Sangjae Lee, Hanbyeol Park, Hyerim Bae, Keonwoo Choi

Analysis of Key Factors of Import Container Dwell Time with Explainable Artificial Intelligence LOGMS, Sep 2023, Scheduled to be Published

Hyunjae Lee, Yongjae Lee, Jonghyuk Lee, Seonkwan Yeo, Hyerim Bae

CERTIFICATIONS & QUALIFICATIONS

- TEPS 369 Feb 2023
- Computer Specialist in Spreadsheet & Database Level I Jul 2020
- SQLD Jun 2021

SCHOLARSHIPS

Academic Excellence Scholarship 2017-1, 2017-2, 2018-1, 2018-2, 2021-1, 2021-2, 2022-1 Scholarship From Lotte Foundation 2022-1