Jaemin Lee

Email : jmlee8939@hanmail.net | GitHub : https://github.com/jmlee8939 | Mobile : 82-10-6576-8939

PERSONAL INTERESTS

Prediction model with explainable models.
Application of data science in various domains (Sports, Marketing).
Development of faster and efficient dynamic merge clustering methods.
AI-control system using prediction & optimization approaches.

EDUCATION

Sungkyunkwan University   Sep. 2020 ~ Aug. 2022
Master of Science in Industrial Engineering (GPA: 4.38/4.5)
Sungkyunkwan University   Mar. 2014 ~ Aug. 2020
Bachelor of Sciæence in Mechanical Engineering (GPA: 3.71/4.5)

WORK EXPERIENCES

Software Engineer – Samsung Electronics, PKG IT, Innovation Center, Device Solutions.   Aug. 2022 ~ Present
Tasks: Manufacturing Execution System(Dispatcher) software engineering.
Development of efficient automated dispatching algorithms with data analysis.

Data Analyst (Intern) – Deloitte Consulting Korea, AI&D   Dec. 2021 ~ Jan. 2002
Tasks: Research, Data preprocessing, Crawling open-source data.
Establishment of analysis environment for electric vehicle.

PROJECT EXPERIENCES

Software Engineer – Samsung Electronics.   Mar. 2024 ~ Sep. 2024
Development of dispatching algorithm to resolve logistics congestion in Semiconductor manufacturing lines.
Researching reasons for logistics congestion in HBM(High Bandwidth Memory) manufacturing lines.
Improving an inter-floor dispatching problem that causes logistics congestion.
Logistics travel-time was reduced over 10%
Tasks: Data analysis, Designing software logic.

Researcher - LG Energy Solution.   Mar. 2021 ~ Aug. 2021
Development of AI-based temperature control system for slurry supply tank in battery slurry coating processes.
Development of feature selection methods for efficient training with imbalanced dataset.
Utilizing meta heuristic optimization methods to optimize non-derivative objective functions.
Tasks: Data processing, Visualization, Data analysis, Modeling. Coding.

Researcher - Hanon Systems.   Jun. 2020 ~ Aug. 2022
Development of AI-based HVAC control system for electric vehicles.
Development of an imitated physical system with neural networks.
Searching optimal control values with non-linear optimization methods.
Tasks: Data processing, Visualization, Data analysis, Modeling.

ACTIVITIES

Football Cracks   Oct. 2023 ~ Present
Researching studies and applications of data science in football domain
Holding seminars about football data-science theses.
Implementation of ML models for soccer analysis (in-game win probability model, pitch control model)

Data Science and Machine Learning : Making Data-Driven Decisions by MIT IDSS (online course)   Sep. 2023 ~ Jan. 2024
Recommendation Systems, Decision Trees, Hyperparameter tuning, EDA, Data Visualization.

Project Leader - AI competition to detect collisions using vibration data, DACON   Jun. 2020 ~ Jul. 2020
Tasks : Data Analysis, Modeling. Coding.
Development of a CNN (Convolutional Neural Networks) based time-series regression model.
Top 8% model accuracy.

Certificates of completion for "Introduction to Data Science in Python" online courses, University of Michigan, Coursera   Nov. 2019 ~ Mar. 2020
Applied Machine Learning, Text Mining, Plotting, Charting & Data Representation in Python.

CERTIFICATIONS & LANGUAGE SKILLS

ADsP (Advanced Data Analytics Semi-Professional), Korea Data Agency

SQLD (SQL Developer), Korea Data Agency

OPIC IH (intermediate high), American council on the teaching of foreign languages.

TECHNICAL SKILLS

Python (Scikit-learn, numpy, pandas, matplotlib, plotly), R (dplyr, tidyr, ggplot2, shiny), Deep-learning framework (pytorch), SQL (Oracle, Mysql)

JOURNAL PUBLICATIONS

Jaemin Lee, Minseok Han, Jong-Seok Lee, (2022**). "Convergence Analysis of Connection Center Evolution and   Faster Clustering"** Pattern Recognition, 127, 108639.

Jaemin Lee, Juhuhn Kim, hyunho Kim, Jong-Seok Lee, (2022) **"A Bayesian approach to predict football matches with changed home advantage in spectator-free matches after the COVID-19 break"** *Entropy,* 24.3 (2022): 366.