Wonkeun Jo

Ph.D. candidate of the Chungnam National University

99 Daehak-ro, Yuseong-gu, Daejeon

✉ jowonkun@g.cnu.ac.kr | ⌂ https://themore-dont-know.tistory.com/ | merchen911 | 🎓 Wonkeun Jo

Projects

National R&D

트윈-디지털 스레드 기반 공작기계 지능화 및 공정 최적화 기술 개발
Korean Ministry of Trade, Industry and Energy
2023 +

박사과정생 연구장려금 지원 사업
Korean Ministry of Education
2022
No. 2022R1A6A3A13056750

Industrials
2020 - 2022
- 공구 상태 분류 모델 및 가공조건/장비 변화 적응형 학습방법론 개발
- 딥러닝 기반 절삭력 유사도 지표 및 공구 수명 예측 방법론 개발
- 가공공정 데이터 기반 변화 및 외부 데이터 적응형 머신러닝 학습 방법론 개발
- 공정 데이터 기반 가공 조건 민감도 분석

Korea Institute of Industrial Technology

Health Care
2019 - 2020
- 심박 데이터를 기반으로 한 혈압예측 인공지능 설계를 통한 기업지원

Korea Testing Laboratory

Astronomy
2020
- 태양 이벤트 탐지 및 분류 방법 개발

Korea Astronomy

Teaching

Deep learning, Daejeon Information & Culture Industry Promotion Agency — *May - Jun, 2023*
Advanced machine learning & Deep learning, Samsung Electronics' semiconductor division — *Aug, 2019*
Basic machine learning, Samsung Electronics' semiconductor division — *Jul, 2019*
Basic machine learning, Samsung Electronics' SWAT trcak — *Jun, 2019*

Paper

Neural additive time-series models: explainable deep learning for multivariate time-series prediction
Expert Systems with Applications, Vol 228 (SCIE, IF=8.665, Q1, Top 10%), will published at 15, Oct, 2023
2023
Wonkeun Jo, and Dongil Kim

Deep learning-based cutting force prediction for machining process using monitoring data
Pattern Analysis and Applications, (SCIE, IF=2.307, Q3), Online available
2023
Soomin Lee, Wonkeun Jo, Hyein Kim, Jeongin Koo, Dongil Kim

OBGAN: minority oversampling near borderline with generative adversarial networks
Expert Systems with Applications, Vol 197, 1 (SCIE, IF=8.665, Q1, Top 10%)
2022
Wonkeun Jo, and Dongil Kim

Solar Event Detection Using Deep-Learning-Based Object Detection Methods
Solar Physics, Vol. 296, 160 (SCIE, IF=2.961, Q2)
2021
Ji-Hye Baek, Sujin Kim, Seonghwan Choi, Jongyeob Park, Jihun Kim, Wonkeun Jo, and Dongil Kim

International conference

The explaiable neural networks for nowcasting

Oct. 2022

INFORMS Annual Meeting 2022

Wonkeun Jo, and Dongil Kim

Prediction of tool wear based on machine learning for cutting force

Oct. 2022

Hoguen Koo, Soomin Lee, Wonkeun Jo,

INFORMS Annual Meeting 2022

Hyein Kim, Jeongin Koo, Juheon Kwak,

and Dongil Kim

Machine learning-based sleep quality prediction with body signal data

Oct. 2022

INFORMS Annual Meeting 2022

Hyojeong Kang, Juheon Kwak,

Wonkeun Jo, and Dongil Kim

Cutting force similarity calculation in milling process using siamese LSTM structure

Feb. 2022

Juheon Kwak, Wonkeun Jo, Soomin Lee,

The 11th International Conference on Industrial Technology and Management (ICITM)

Hyein Kim, Jeongin Koo, and Dongil Kim

Blood pressure prediction based on deep learning with PPG and ECG signal data

Oct. 2021

Junwon Park, Wonkeun Jo, Hoguen

INFORMS annual meeting 2021

Koo, Hyungtaik Oh, Kyhyup Oh, and

Dongil Kim

Deep learning-based cutting force prediction with machining process monitoring data

Oct. 2021

Soomin Lee, Wonkeun Jo, Dongil Kim,

INFORMS annual meeting 2021

Hyein Kim, and Jeongin Koo

Improvement of class imbalanced classification performance with generative adversarial network

Nov. 2020

INFORMS annual meeting 2020

Wonkuen Jo, Dongil Kim

Domestic conference

신경망 이미지 분할 모델을 이용한 세포의 형태학적 특성 군집화

Apr. 2023

Hyemin Lim, Wonkeun Jo, Youngjoon

Korean Institute of Intelligent Systems

Kho, and Dongil Kim

Machine learning-based prediction of user state on the computer tasking

Feb. 2023

Hyojeong Kang, Soomin Lee, Wonkeun

Korea Conference on Software Engineering

Jo, and Dongil Kim

특징 추출과 딥러닝을 활용한 항원 결정기 예측

Nov. 2022

Jungmin Ha, Wonkeun Jo, and

Korean DataBase Conference 2022

Young-Kuk Kim

Both authors equally contributed.

Neural additive models for nowcasting

Nov. 2022

Korea Data Mining Society Conference 2022

Wonkeun Jo, and Dongil Kim

Sleep Quality Prediction with E4 Wireless Dataset based on Machine Learning

Aug. 2022

Hyojeong Kang, Juheon Kwak,

Korea Computer Congress 2022 (KCC2022)

Wonkeun Jo, and Dongil Kim

Interpretable Neural Network for Time Series Nowcasting

Aug. 2022

Korea Computer Congress 2022 (KCC2022)

Wonkeun Jo, and Dongil Kim

Recommendation System Based on Graph Collaborative Filtering Using Explicit Information

KOREA SOFTWARE CONGRESS 2021 (KSC2021)

Dec. 2021

*Hyungtaik Oh, **Wonkeun Jo**, and Dongil Kim*

Hybrid Sequential Recommendation System Using k-NN and Graph Neural Networks

KOREA SOFTWARE CONGRESS 2021 (KSC2021)

Dec. 2021

*Hogeun Koo, Soomin Lee, **Wonkeun Jo**, and Dongil Kim*

Milling tool wear prediction based on sensor and time-series feature extraction

KOREA SOFTWARE CONGRESS 2021 (KSC2021)

Dec. 2021

***Wonkeun Jo**, Hogeun Koo, Hyein Kim, Jeongin Koo, and Dongil Kim*

Methodology of Cutting Force Similarity Calculation in Milling Process using Siamese LSTM Structure

KOREA SOFTWARE CONGRESS 2021 (KSC2021)

Dec. 2021

*Juheon Kwak, **Wonkeun Jo**, Soomin Lee, Hyein Kim, Jeongin Koo, and Dongil Kim*

Deep learning-based cutting force prediction with machining process monitoring data

KOREA COMPUTER CONGRESS 2021 (KCC2021)

Jun. 2021

*Soomin Lee, **Wonkeun Jo**, Hyein Kim, Jeongin Koo, and Dongil Kim*

Blood pressure prediction based on deep learning with PPG and ECG

KOREA COMPUTER CONGRESS 2021 (KCC2021)

Jun. 2021

*Junwon Park, **Wonkeun Jo**, Kyhyup Oh, and Dongil Kim*

Machine learning-based elderly depression prediction with pattern-of-life data

KOREA SOFTWARE CONGRESS 2020 (KSC2020)

Dec. 2020

*Soomin Lee, Seonyoung Kim, **Wonkuen Jo**, Junyoung Choi, Hyungshin Kim, and Dongil Kim*

Intelligent data generation with generative adversarial nets for class-imbalanced problems

KOREA COMPUTER CONGRESS 2020 (KCC2020)

Jul. 2020

***Wonkuen Jo**, and Dongil Kim*

Education

Chungnam National University

PH.D. IN COMPUTER SCIENCE & ENGINEERING

Daejeon, S.Korea

Mar. 2021 - Present

Chungnam National University

M.S. IN COMPUTER SCIENCE & ENGINEERING

Daejeon, S.Korea

Mar. 2019 - Feb. 2021

Chungnam National University

B.S. IN PHYSICS

Daejeon, S.Korea

Mar. 2011 - Aug. 2018