Yukai Jin

d233392@hiroshima-u.ac.jp | ericjin73.github.io

EDUCATION

Hiroshima University, Japan   Oct. 2023 – present
- Ph.D. candidate in Social Innovation Science
- Advisor: Prof. Ayyoob Sharifi and Prof. Daisaku GOTO

Guangdong University of Technology, China   Sept. 2020 – June 2023
- M.Eng. in Civil Engineering
- Advisor: Assoc. Prof. Zhisheng Li

Jiangxi Agricultural University, China   Sept. 2016 – June 2020
- B.A. in Engineering

RESEARCH INTERESTS

Environmental Science: Urban Climate, Greenhouse Gas Emission, Energy Consumption
Computer Science: Machine Learning, Topic Modeling, Natural Language Processing

PUBLICATIONS

Thermography evaluation of defect characteristics of building envelopes in urban villages in Guangzhou, China   Dec. 2022
Zhisheng Li, *Yukai Jin*, Xiguan Liang, et al.
Case Studies in Construction Materials (10.1016/j.cscm.2022.e01373)

Carbon emission prediction models: A review   June 2024
Yukai Jin, Ayyoob Sharifi, Zhisheng Li, et al.
Science of the Total Environment (10.1016/j.scitotenv.2024.172319)

Analyzing particulate matter characteristics of the subway system: Case study of Guangzhou   Sept. 2024
Yukai Jin, Ayyoob Sharifi, Zhisheng Li, et al.
Case Studies in Chemical and Environmental Engineering (Accepted)

PROJECTS

Soft Science Research Project of Guangdong Provincial Department of Housing and Urban-Rural Development (No. 2021-R2-283159)   Sept. 2021 - Sept. 2023
- Using machine learning to assess the influence of macroeconomic factors on carbon emissions in Guangdong Province
- Drafting the Guangdong Zero-Carbon Community Development Report

SmaSo-X Challenge Project: A deep learning approach to analyze future urban emission pathways   Oct. 2023 - Sept. 2024
- Developing an integrated urban carbon emission prediction framework using machine learning and GIS tools

- Single author

CONFERENCE

Predicting long-term building energy consumption using multiple feature clustering and machine learning: applications in Shanghai, China	Sept. 2024

Yukai Jin (Oral presentation), Ayyoob Sharifi

the 16th International Conference on Applied Energy. Nigata, Japan

PATENTS

PM2.5 prediction method and prediction model training method based on hybrid clustering	Mar. 2022

Zhisheng Li, *Yukai Jin*

Chinese invention patent (No.2022102076495)

A carbon emission prediction method based on deep learning	Oct. 2022

Zhisheng Li, *Yukai Jin*

Chinese invention patent (No.2022102076495)

WORKING EXPERIENCE

Research Assistant, NEARPS – Hiroshima University   Jan. 2024 – Feb. 2024
- Drafted a review on urban greenhouse gas emission prediction
- Advisor: Prof. Ayyoob Sharifi

Research Assistant, SmaSo – Hiroshima University   May 2024 – July 2024
- Conducted topic modeling on urban climate research papers
- Advisor: Prof. Ayyoob Sharifi

Teaching Assistant, SmaSo – Hiroshima University   Oct. 2024 – Feb. 2025
- Served as a teaching assistant for the Public Administration and Management course, assisting with teaching activities
- Advisor: Assoc. Prof. Shunsaku Komatsuzaki

AWARDS

Graduate Scholarship Third - Guangdong University of Technology	Sept. 2020
Graduate Scholarship First - Guangdong University of Technology	Sept. 2022
SmaSo-X Scholarship - Hiroshima University	Oct. 2023 - Mar. 2024
New spring Fellowship - Hiroshima University	Apr. 2024 - Sept. 2026

SKILLS

Programming/Software: Python, html, LaTeX, AutoCAD, QGIS

Language: English (fluent), Japanese (conversation), Chinese (native)