

Yukai Jin

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EDUCATION

Hiroshima University, Japan	Oct. 2023 – present
<ul style="list-style-type: none">• Ph.D. candidate in Social Innovation Science• Advisor: Prof. Ayyoob Sharifi and Prof. Daisaku GOTO	
Guangdong University of Technology, China	Sept. 2020 – June 2023
<ul style="list-style-type: none">• M.Eng. in Civil Engineering• Advisor: Assoc. Prof. Zhisheng Li	
Jiangxi Agricultural University, China	Sept. 2016 – June 2020
<ul style="list-style-type: none">• B.A. in Engineering	

RESEARCH INTERESTS

Environmental & Computer Science: City Classification, Prediction of Urban CO₂ Emissions, Topic Modeling of Urban Climate Change

PUBLICATIONS

Thermography evaluation of defect characteristics of building envelopes in urban villages in Guangzhou, China	Dec. 2022
Zhisheng Li, <i>Yukai Jin</i> , Xiguan Liang, et al.	
Case Studies in Construction Materials (10.1016/j.cscm.2022.e01373)	
Carbon emission prediction models: A review	June 2024
<i>Yukai Jin</i> , 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
<i>Yukai Jin</i> , Ayyoob Sharifi, Zhisheng Li, et al.	
Case Studies in Chemical and Environmental Engineering (10.1016/j.cscee.2024.100953)	

PROJECTS

Soft Science Research Project of Guangdong Provincial Department of Housing and Urban-Rural Development (No. 2021-R2-283159)	Sept. 2021 - Sept. 2023
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• 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.202211247187.6)

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 – Dec. 2024

- 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 (conversational), Chinese (native)