

# Yukai Jin

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## EDUCATION

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

## RESEARCH INTERESTS

**Environmental & Computer Science:** City Classification, Prediction of Urban CO<sub>2</sub> Emissions, Topic Modeling of Urban Climate Change

## PUBLICATIONS

<b>Thermography evaluation of defect characteristics of building envelopes in urban villages in Guangzhou, China</b>	Dec. 2022
Zhisheng Li, <i>Yukai Jin</i> , Xiguan Liang, et al. Case Studies in Construction Materials (10.1016/j.cscm.2022.e01373)	
<b>Carbon emission prediction models: A review</b>	June 2024
<i>Yukai Jin</i> , Ayyoob Sharifi, Zhisheng Li, et al. Science of the Total Environment (10.1016/j.scitotenv.2024.172319)	
<b>Analyzing particulate matter characteristics of the subway system: Case study of Guangzhou</b>	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

<b>Soft Science Research Project of Guangdong Provincial Department of Housing and Urban-Rural Development (No. 2021-R2-283159)</b>	Sept. 2021 - Sept. 2023
<ul style="list-style-type: none"><li>• Using machine learning to assess the influence of macroeconomic factors on carbon emissions in Guangdong Province</li><li>• Drafting the Guangdong Zero-Carbon Community Development Report</li></ul>	
<b>SmaSo-X Challenge Project: A deep learning approach to analyze future urban emission pathways</b>	Oct. 2023 - Sept. 2024
<ul style="list-style-type: none"><li>• Developing an integrated urban carbon emission prediction framework using machine learning and GIS tools</li></ul>	

- Single author

## CONFERENCE

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**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

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**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

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**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

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**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

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**Programming/Software:** Python, html,  $\text{\LaTeX}$ , AutoCAD, QGIS  
**Language:** English (fluent), Japanese (conversation), Chinese (native)