Zhenchuan Yang

Institute of Space and Earth Information Science, the Chinese University of Hong Kong

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EDUCATION

Institute of Space and Earth Information Science, the Chinese University of Hong Kong　　*08/2022-Present*
PhD student Earth System and GeoInformation Science

School of Management Science and Real Estate, Chongqing University　　*09/2019-06/2022*
M.S. Management Science and Engineering
- Academic result: 86.4/100
- Awards: **Outstanding Graduate Student, Outstanding Postgraduate, A-level Scholarship**

B.E. Construction Management　　*09/2015-06/2019*
- Academic result: GPA 3.59/4 (ranking 11/115)
- Awards: **National Encouragement Scholarship, Outstanding Graduate Cadre, Outstanding Student, Comprehensive Scholarship**, Advanced Individual In Sports

RESEARCH PAPER

Journal paper
- Shen, L., **Yang, Z.***, Du, X., Wei, X., & Chen, X. (2022). A health risk-based threshold method to evaluate Urban Atmospheric Environment Carrying Capacity in Beijing-Tianjin-Hebei (BTH) Region. *Environmental Impact Assessment Review*, 92, 106692. (Published) (Corresponding author)
- Du, X., Shen, L.*, Wong, S. W., Meng, C., & **Yang, Z.**. (2021). Night-time light data based decoupling relationship analysis between economic growth and carbon emission in 289 Chinese cities. *Sustainable Cities and Society*, 73, 103119. (Published)
- Shen, L., Chen, X.*, Du, X., & **Yang, Z**. (2022). An improved method for investigating urban municipal infrastructures carrying capacity. *Sustainable Production and Consumption*, 29, 299-310. (Published)
- Zhenchuan Yang, Jianwei Huang, Mei-Po Kwan, Dong Liu. The interplay among individuals' distress, daily activities, and perceptions of COVID-19 and neighborhood cohesion: A study using network analysis. (Under review)

Conference paper
- **Yang, Z***. Identification of spatial economic development model in Chengyu Urban Agglomeration County by applying Exploratory Spatial Data Analysis, CRIOCM 2020: *25th International Symposium on Advancement of Construction Management and Real Estate* (Published, Merit Paper Reward)
- **Yang, Z***. A study on spatiotemporal performances of the urban atmospheric environment carrying capacity in 35 large Chinese cities from 2015 to 2019, CRIOCM 2021: *26th International Symposium on Advancement of Construction Management and Real Estate* (Accepted)

RESEARCH EXPERIENCE

The Chinese University of Hong Kong　　*08/2022-Present*
- **PhD student**, Institute of Space and Earth Information Science

(A) *Deploying Geospatial Big Data and Real-time Mobile Sensing to Assess the Health Impacts of Individual Exposure to Green/blue Spaces, Light at Night, Air Pollution, and Noise (GLAN)*
Hong Kong Research Grants Council (RGC) Collaborative Research Fund, Ongoing, as an active member
- Conduct field study to communicate with recruited participants and collect geospatial big data;
- Wrote papers and conducted community feedback to transport our research findings.

Chongqing University　　*09/2019-06/2022*
- **Master Student**, School of Management Science and Real Estate
- **Research Assistant,** International Research Centre for Sustainable Built Environment

(A) *Assessment and policy study on resources and environmental carrying capacities in large-scale cities under the background of big data*
Major National Social Science Fund Project, Grant No. 17ZDA062, Completed, as an active member
- Proposed a **health risk-based assessment method** of urban atmospheric environmental carrying capacity, and carried out empirical research on 35 large cities in China based on big data of atmospheric environment;
- Assisted the technician in **developing the Policy Supporting System for Decision Making** on Large City's Resource Environmental Carrying Capacity (PDM-LCRECC) by applying computer knowledge, and contributed to the data of the urban atmospheric environment in the system database;

- Participated in the field survey of Taiyuan and online research activities in Beijing, Lanzhou, Urumqi, etc., and finally summarized the research results;
- **Wrote two chapters in the final report of the project**; assisted in the writing of related chapters; participated in the polishing and revision of the entire report text.

(B) High-resolution spatial and temporal distribution simulation of atmospheric environmental carrying capacity and its influencing factors in Beijing-Tianjin-Hebei Region -- Based on GWR-LUR Model

Graduate Student Research Innovation Project, Grant No.CYS20037, Ongoing, as a leader

- Applied for the project as the **first person in charge** of the project and have successfully obtained funding;
- Wrote a research paper called *A health risk-based threshold method to evaluate Urban Atmospheric Environment Carrying Capacity in Beijing-Tianjin-Hebei (BTH) Region*.

The Hong Kong Polytechnic University *03/2021-10/2021*
- **Research Assistant**, Department of Building and Real Estate

(C) Life Cycle Cost Analysis of Construction Equipment with Integrated Environmental Effects

General Research Fund project, PolyU P0005342, Ongoing, as an active member

- Conducted a comparative study of the environmental emission standards and calculation methods of non-road mobile machinery amongst the United States, the European Union, Japan, South Korea, and China;
- **Constructed an automatic calculator** for the emissions calculation of non-road mobile machinery (NRMM) in Hong Kong;
- Wrote a paper named *Comparison Analysis on Co-benefits of Emission Reduction Measures for Construction Equipment in Hong Kong*.

PROFESSIONAL SKILL

Computer Skills	• Origin, SPSS, EViews, GIS, Python & R
	• LUR (GWR & GTWR), ESDA (Moran'I & LISA), pollution evaluation, health risks assessment, cost-benefit analysis, input-output analysis, policy studies, etc.

RESEARCH INTEREST

- Air pollution and climate change
- Urban big data and geospatial analysis
- Environmental impact assessment including health risks and economic burden
- Environmental justice