ZHAOXI ZHANG

BArch and MSc in Architecture, PhD in Environmental Science

- Creative urban strategist with LEED AP in Neighbourhood Development;
- Board knowledge and strong research skills related to urban topics;
- 4+ years' experience in urban health and health-promoting urban design;
- Technical and analytical skills related to big data and geospatial analysis;
- Interdisciplinary knowledge for a sustainable, smart and healthy urban future.

My Portfolio

I work at the intersection of urban environment, technology and human well-being. My ambition is to create a holistic workflow that integrates research and design, using evidence-based design methods and tools to develop a healthy, smart and sustainable city.

PROFESSIONAL EXPERIENCE

Doctoral Research Fellowship

Aarhus University, Roskilde, Denmark — **08/2019–11/2022**

Doctoral project "Urban Health Sensing":
- Managed a large scale social companion programme and trained over 100 volunteers to achieve the goal of collecting data via public participation.
- Investigated the effects of exposures to urban features on human health via wearable sensors (i.e. GPS, bio-sensors, wearable camera) and machine learning in Denmark.
- Published eight high quality papers and presented at three international conferences, collaborating with people from different disciplines.

EU Horizon Project Assistant, REGREEN:
- Bridged knowledge gaps between China and Europe by conducting case studies on nature-based urban solutions in selected city samples.

Full-time Research Assistant

Tsinghua University, Beijing, China — **07/2018–07/2019**

Urban research and design:
- Managed research proposals to apply for funding and awards.
- Performed data analysis on the association between leisure-time physical activity and the built environment (evidence from an accelerometer and GPS based fitness app).
- Evidence-based design Practice: Shanghai Urban Design Competition (second prize) and the Future of the Smart Island Competition Workshop (first prize).

Teaching and training:
- Organised workshops, design competitions, webinars with industry partners.
- Assisted in the development of the urban design course and facilitated the teaching of the urban design studio by guiding students how to complete the assignments.

ADDITIONAL EXPERIENCE

UN-Habitat Urban Health Intern

Nairobi, Kenya — **04/2023–08/2023**

- Strategies for creating healthy places and a digital platform to encourage youth to get involved and take part in healthy placemaking.

Session Chair

New York, USA — **11/2021–03/2022**

2022 American Association of Geographers (AAG) Annual Meeting:
- Topic: Geographies of Environment and Health: Big data for environment and health
- Facilitated two sessions with over 70 participants, focusing on the use of big data for environment and health.

Urban Designer

9town-studio, Shanghai, China — **05/2017–05/2018**

- Led a team of 5 and collaborated with local agencies to edit Zhuzhou Complete Street Design Manual to improve the walkability and promote citizens' physical activities.

SOFT SKILLS

- Problem-solving
- Multitasker
- Presentation skill
- Time management
- Lifelong learning

TECHINICAL SKILLS

- GIS
- SPSS
- Python
- CAD
- Sketchup
- Space Syntax
- Adobe creative suite

zhangzhaoxi527@gmail.com

TEL +45 52640558

Copenhagen, Denmark

EDUCATION

Doctoral degree in Environmental Science

Aarhus University, Roskilde, Denmark — **08/2019–11/2022**

- **Thesis title:** Urban Health Sensing: Assessing human's physiological stress response to urban settings using wearable sensors

University of Salzburg, Austria — **09/2021 – 12/2021**

- Visiting PhD Student in the Z_GIS - Department of Geoinformatics

Master of Architecture

Tongji University, China (GPA:3.67/4.0) — **09/2015–07/2018**

- **Thesis title:** Analysis on the impact of street design on elderly people's walking safety

Technische Universität Berlin, Germany — **09/2016–03/2017**

- Exchange student, winter term 2016-2017

Bachelor of Architecture

Xi`an University of Architecture and Technology, China (GPA:3.3/4.0) — **09/2010–07/2015**

ACHIEVEMENTS

Selected Certificates on Sustainable Future

- 2022, GBCI, "**LEED AP Neighborhood Development (ND)**" certificate;
- 2022, United Nations Institute for Training and Research, "**Cities and Climate Change**" certificate;
- 2022, The Johns Hopkins University School of Medicine, "**Transportation, Sustainable Buildings, Green Construction**" and "**Sustainable Regional Principles, Planning and Transportation**" certificate;

Volunteers and Leadership

- 12/2020-06/2021, supported social innovation in a student-led volunteer organisation **Danish Social Innovation Club** and facilitated six webinars on the "**circular economy**" theme in Copenhagen, Denmark;
- 08/2018-07/2017, Vice president for the student Union at Tongji University and led 35 volunteers to support summer education in Dimen Village, Guizhou, China.

Activities

- 2022, Obtaining advanced LCA tools via One Click LCA APAC Summer School "**Construction Life Cycle Assessment Specialist**", One Click LCA;
- 2021, Seeking collaborations with external parties and strengthening the network via **Urban Civic Education LAB**, Vienna;
- 2019, Exhibiting in **Bi-city Biennale of Urbanism**/ Architecture, Digital Self, Daily life and city Space, China.

ABOUT ME

I am an open-minded and creative person who pursues happy life and happy work. I like the international work environment and meeting people from different cultures.

AWARDS

- 2021, **Mobility Grant**, Aarhus University
- 2019, **University scholarship,** Aarhus University
- 2018, **Outstanding Graduate** of Tongji University
- 2017, **China National Postgraduate Scholarship**
- 2014, **Best Student's Works** of Exchange Programs of Architecture Schools

LANGUAGES

- **English** - Proficient
- **Chinese** - Native
- **Danish** - Basic

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PUBLICATIONS (2017-2023)

ResearchGate ***Linkedin***

Research Interests: Person-environment interactions; Evidence-based Design; Data Augmented Design; Urban Health; Public Open Space; Fine-grained analysis on the human level; Wearable sensors; Human physiological response; Pedestrian activity; Cognition.

JOURNAL ARTICLES

- **Zhang, Z.**, Amegbor, P. M., Sigsgaard, T., & Sabel, C. E. (2022). Assessing the association between urban features and human physiological stress response using wearable sensors in different urban contexts. *Health & Place*, 78, 102924. doi:https://doi.org/10.1016/j.healthplace.2022.102924
- **Zhang, Z.**, Amegbor, P. M., & Sabel, C. E. (2022). The feasibility of integrating wearable cameras and health trackers for measuring personal exposure to urban features: a pilot study in Roskilde, Denmark. *International Journal of E-Planning Research (IJEPR)*, 11(1), 1-21. http://doi.org/10.4018/IJEPR.313181
- Chen, L., **Zhang, Z.**, & Long, Y. (2021). Association between leisure-time physical activity and the built environment in China: Empirical evidence from an accelerometer and GPS-based fitness app. *PLoS One*, 16(12), e0260570. doi:10.1371/journal.pone.0260570
- **Zhang, Z.**, Long, Y., Chen, L., & Chen, C. (2021). Assessing personal exposure to urban greenery using wearable cameras and machine learning. *Cities*, 109. doi:10.1016/j.cities.2020.103006
- **Zhang, Z.**, Amegbor, P. M., & Sabel, C. E. (2021). Assessing the Current Integration of Multiple Personalised Wearable Sensors for Environment and Health Monitoring. *Sensors* (Basel), 21(22). doi:10.3390/s21227693
- Amegbor, P. M., **Zhang, Z.**, Dalgaard, R., & Sabel, C. E. (2020). Multilevel and spatial analyses of childhood malnutrition in Uganda: examining individual and contextual factors. *Sci Rep*, 10(1), 20019. doi:10.1038/s41598-020-76856-y
- Wu, H., **Zhang, Z.**, Chen, Y., & Jiao, J. (2020). The impact of street characteristics on older pedestrians' perceived safety in Shanghai, China. *Journal of Transport and Land Use*, 13(1), 469-490. doi:10.5198/jtlu.2020.1588
- **Zhang, Z.**, & Long, Y. (2019). Application of wearable cameras in studying individual behaviors in built environments. *Landscape Architecture Frontiers,* 7(2), 22-37. doi:10.15302/j-laf-20190203
- **Zhang, Z.**, Měchurová, K., Resch, B., Amegbor, P. M., & Sabel, C. E. (2023). Assessing the association between overcrowding and human physiological stress response in different urban contexts: A case study in Salzburg. International Journal of Health Geographics. (2nd under review)
- Su,N., **Zhang,Z.**, Chen, J., Li, W., & Long, Y(2023).Using Wearable Cameras To Understand Screen-Based Behaviors in the Complex Daily Activities and Contexts: An Observational Study. Travel Behaviour and Society. (2nd under review)
- Hou, J., **Zhang, Z.**, & Long, Y. (2023). Measuring staying behavior in human-scale public space using camera traps and deep learning method. Journal of Urban Design (Under review)

BOOK CHAPTER

- Sabel, C. E., Amegbor, P. M., **Zhang, Z.**, Chen, T.-H. K., Poulsen, M. B., Hertel, O., . . . Khan, J. (2021). Urban Health and Wellbeing. In W. Shi, M. F. Goodchild, M. Batty, M.-P. Kwan, & A. Zhang (Eds.), Urban Informatics (pp. 259-280). Singapore: Springer Singapore.

CONFERENCES

- "Measuring the health effects of 'Green' and 'blue' elements in different types of urban environments by employing wearable sensors: A field experiment in Copenhagen, Denmark". **Zhang, Z. (presenter)**, Amegbor, P. M., Sabel, C. E., & Sigsgaard, T. The 2022 American Association of Geographers Annual Meeting. American Association of Geographers, New York, USA, Feb 25–March 1, 2022
- "Integrating multiple personalised sensors for measuring human responses to urban features: A pilot study". **Zhang, Z. (presenter)**, Amegbor, P. M., & Sabel, C. E. 5th International Conference Urban E-Planning, Institute of Geography and Spatial Planning University of Lisbon, Lisbon, Portugal. Sep 2021
- "Exploration on the personal spatial exposure of greenness based on the experiment of wearable camera". **Zhang, Z. (presenter)**, & Long,Y. 16th International Conference on Computers in Urban Planning and Urban Management. Wuhan, China. July 8–12, 2019
- "Analysis on the Influence of Street Design on Elderly people's walking safety". **Zhang, Z. (presenter)**, & Chen, Y. The Proceedings of 2018 World Transport Convention. Beijing, China. Jun 13–16, 2018
- "A review of relationship between objective analysis and subjective perception on Urban Morphology Study". **Zhang, Z. (presenter)**, ISUF Conference 2017, Valencia, Spain. Sep 27–29, 2017
- "Regional Integration in Ethnic and Religious Contexts: Taking Germany and China as Examples". **Zhang, Z.**, AESOP Annual Congress 2017, Lisbon, Portugal. July 11–14, 2017
- "Analysis of the block built environment elements that influence residents' commute transportation choices". **Zhang, Z.**, & Wu, H. (presenter), 12th EBRA Conference, Chongqing, China. Oct 28–29, 2016

TALK

- **Interview** "City Walk: Urban Context May Make a Difference on Human Health", with Data for good.science in February 20th, 2021.
- **External speaker** "Urban Health Sensing: Physiologically measure human responses to different urban features and evaluate the health effects of urban exposures.", on the internal webinar (only for eMOTIONALCities' partners) in February, 25th, 2021 at Danmarks Tekniske Universitet – DTU
- **Interview**: "How Our Surroundings Affect Our Mental Health", with Data for good.science in November 10th, 2022
- **External speaker** "Urban Health: From Theory to Practice, From Research to Design ", on the internal webinar (Journal Club) in October 12th, 2022 at Department of Public Health, University of Copenhagen
- **External speaker** "Urban Health Sensing: Physiologically measure human responses to different urban features and evaluate the health effects of urban exposures.", on the internal webinar (Urban Design Section) in January, 20th, 2023 at Tongji University

SOCIAL MEDIA

- Urban Health Sensing, a platform that shares the idea of healthy, sustainable and smart urban innovations. Urban Health Sensing targets technology-based inspiration and instructive strategies for promoting a healthy urban future.