MENG MEI

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RESEARCH INTEREST:

Spatial analysis | Urban computing | Urban perception

EDUCATION

Bartlett school of architecture, UCL London, UK

M.Arch, Urban design Sep.2022 – Sep.2023

- Focusing on the field of urban perception, combining geographical big data and individual perception data provided by Arduino, targeted collection of how to empower local issues and communities and express their opinions, fundamentally changing the design practice of infrastructure.
- Relevant courses: Design thesis report (75) Literature Review (70) Bpro skills course (70)
- Thesis: "Visual perception and quantification of heterogeneous communities under digital traces"

Qingdao University of Technology China

B.Arch, Architecture Sep.2017 - July 2022

- GPA: 3.5/4.0 (Ranked in top 10%)
- Outstanding graduates (2022) Developing Countries Architectural Design Exhibition Excellence Award (2022) Future Talent Scholarship (2020) Outstanding Student Scholarship (2019-2021)

RESEARCH EXPERIENCE

Institute Of Geographic Sciences and Natural Resources Research, CAS Beijing, China

Research assistant, supervised by Prof. Jianghao Wang Mar.2024 – Present

- Led the research on urban green space, providing data-driven empirical evidence for policy making using geographic big data and a deep learning framework for Natural language processing (NLP). Responsible for project design, data analysis, and drafting the research report.
- Assisted in configuring cloud servers for other machine learning models within the group, in addition to conducting model training, testing, and prediction tasks.
- **Key Topics**: Quasi-experimental, NLP, Statistics

Bartlett school of architecture, UCL London, UK

Postgraduate Researcher, supervised by Dr. Annarita papeschi Sep.2022 – Sep.2023

- Created 2D and 3D visualizations of crawled urban sentiment data using QGIS and Grasshopper.
- Developed a deep learning model for object detection using Python to recognize and predict specific elements in street view images of London's Chinatown.
- Utilized the Grasshopper plugin to perform multi-agent based behavioral simulations and design model iteration.
- **Key Topics**: Geographic Data Visualization, Object Detection, Simulation

WORKSHOP

DigitalFUTURES 2024, Tongji University Shanghai, China

Research Collaborator June.2024 – July.2024

- Participate in the research predicting carbon-pollution-heat synergistic benefits at the urban block scale based on multimodal deep learning, responsible for data collection and preprocessing in the initial stage.
- Responsible for algorithmic architecture, model training, and conditional GAN optimization
- Expected to achieve accurate predictions of carbon-pollution-heat synergistic effects based on satellite images.
- **Key Topics**: Multimodal, Conditional GAN, Environmental Justice

TECHNICAL SKILLS

Software

- Architectural Design and Modeling: AutoCAD, Sketchup, Rhino Grasshopper, V-ray, Lumion
- GIS and Machine Learning: QGIS, Python (Pytorch, TensorFlow), R
- Graphic Design: Adobe Creative Suite (Photoshop, Illustrator and InDesign)
- Human-Computer Interaction: Arduino, vvvv programming, Oculus

Language

- Mandarin (native), English (IELTS reading7.0 writing6.5)