RESEARCH SEMINAR

DEPARTMENT OF GEOGRAPHY AND RESOURCE MANAGEMENT THE CHINESE UNIVERSITY OF HONG KONG

Human-centered Geospatial Data Science

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In recent years, Geospatial Data Science - the use of geographic knowledge and AI approaches to extract meaningful insights from large-scale geographic data - has achieved remarkable success in spatial knowledge discovery and reasoning, and geographic phenomena modeling. However, two challenges remain in geospatial data science: (1) geographic phenomena are always treated as functions of a set of physical settings, but human experience has received insufficient attention; (2) there are limited strategies to focus on and address geoethical issues. In this talk, Mr. Kang will present a series of works that utilized geospatial data science to understand human experience and sense of place. In particular, using large-scale street view images, social media data, human mobility data, and advanced GeoAl approaches, he measured and analyzed human subjective perceptions (e.g., whether a neighborhood is perceived as a safe, lively, and beautiful place), and emotions (e.g., happiness) at places, as well as humanenvironment relationships. Also, his work paid attention on geoethical issues such as monitoring bias and protecting geoprivacy. Additionally, he will illustrate the applications of geospatial data science to solve a series of practical problems such as public health and racial justice. Finally, he will share his multifaceted experiences in GIScience education.



Mr. Yuhao Kang Ph.D. Candidate, GeoDS Lab, University of Wisconsin-Madison Research Affiliate, MIT Senseable City Lab

Yuhao Kang is a Ph.D. Candidate in GIScience at the University of Wisconsin-Madison, and also a research affiliate at the MIT Senseable City Lab. He got a bachelor's degree from Wuhan University. He had working experience at Google X, MoBike, and Peking University. His research focuses on developing human-centered GeoAI algorithms in GIScience to support geospatial big data analytics and decision-making in the urban environment. He has published over 40 peer-reviewed academic articles with over 1,400 citations. He was the recipient for several fellowships and best paper awards. Additionally, he founded the non-profit project GISphere that facilitates global GIS educations.





