Transportation Data Science Seminar Series

Revealing the disparity in human mobility dynamics during the COVID-19 pandemic via data-driven approaches

Seminar summary

The COVID-19 pandemic has led to serious health, economic, and social challenges and is believed to have disturbed human interactions, place connectivity, urban structures, spatial networks in many ways. The growing availability of a massive amount of digital traces from various sources has largely facilitated the establishment of comprehensive COVID-19 impact narratives from a data-driven perspective. In this presentation, I aim to present and summarize some of our team's efforts in understanding the dynamics of mobility-related patterns derived from a variety of big geospatial data sources (e.g., Twitter and cell phone records) under data-driven evaluation frameworks (e.g., curve-driven resilience loss quantification, data-driven stage/phase definition, and traditional/advanced time-series clustering/manifold). This presentation is expected to promote data-driven analytical paradims in exploring human mobility disturbances under disruptive events. This seminar series is co-organized by the Department of Landscape Architecture and Urban Planning, Transportation Institute, and Institute of Data Science at Texas A&M University.

Speaker's information

Dr. Xiao Huang is an Assistant Professor in the Department of Geosciences at the University of Arkansas. His research primarily focuses on geospatial analysis, geo-visualization, environmental modeling, computer and data science, and Big Data analytics, within the general field of GIScience. His research takes advantage of and also addresses the challenges of rapidly growing data availability through the utilization and development of advanced data-driven analytical frameworks. In 2021 alone, Dr. Huang published 56 peer-review journal articles, with a great number of works focusing on addressing COVID-19 analytical challenges. Professionally, he sits in the Editorial Board for Big Earth Data, Computational Urban Science, International Journal of Digital Earth (starting from 2022), and Frontiers Remote Sensing, and serves as a reviewer for 36 international/national journals. Many of Dr. Huang's work appeared in top journals such as IJGIS, CaGIS, Transactions in GIS, Neurocomputing, ISPRS Photogram., Global Change Biology, etc.

Time: 8:00-9:00 p.m. US Central Time (Thursday, February 03, 2022)
Zoom Meeting ID: 732 641 0814 Passcode: 575829
Direct Link: https://tamu.zoom.us/j/7326410814?pwd=cGZKY045dmVkdzVRLy9MYWhocWorQT09

Faculty Host: Xinyue Ye, Dept. of Landscape Architecture and Urban Planning & Urban Data Science Lab

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