



Urban Visual Intelligence: Revealing Hidden City Profiles from Image Records of City

Research Talk Summary

It is well-known that images provide a representation of their content. With millions of images capturing the city every day, a core question arises: what information can we extract to inform urban planning interventions? In this talk, I will present two main projects under the broad topic of urban visual intelligence. These projects leverage computer vision tools and crowd-sourced image or video data to uncover hidden city profiles. The first project covers a baseline study that uses millions of street view images across 80 counties in the United States to predict neighborhood socioeconomic profiles, such as transport, poverty, crime, and health behaviors. Our models outperform those using points of interests (POI), population, and other demographic factors. The second project will discuss how we use bus dashcam footage to capture bus risk factors in a dense urban environment.

This seminar series is co-organized by CHUD (Center for Housing & Urban Development), GeoSAT (Center for Geospatial Sciences, Applications and Technology), and TAMIDS-DAL (Design and Analytics Lab for Urban Artificial Intelligence @ Texas A&M Institute of Data Science).

Speaker's information



Zhuangyuan Fan is a second-year PhD student at the University of Hong Kong and a research fellow at the MIT Senseable City Lab. She holds a Master of City Planning from MIT, with a focus on Urban Information Systems, and a Master of Landscape Architecture from the University of Pennsylvania. Previously, she worked as a data scientist with Tencent Cloud and Ready.net. Her research focuses on explaining human-space interaction with geospatial data science approaches. She has received scholarships from the Research Grants Council of Hong Kong, MIT, and Zhejiang University, as well as a Sandbox seed fund from MIT.

Time: 10:00-10:30 a.m. US Central Time (Thursday, August 24th, 2023)

Zoom Meeting ID: 913 4878 2354 Passcode: 538895

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Host: Chunwu Zhu, Data Science Ambassador@TAMIDS, PhD student@LAUP, TAMU



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