# Big Data, AI and Transportation Planning Applications Workshop

Workshop Agenda: 8 AM - 5 PM on May 30, 2025

HUB 145, University of Washington, Seattle

| Time | Program | Speakers/Presentations |
|---|---|---|
| 7:30 am - 8:30 am | | Breakfast and Networking |
| 8:30 am - 9:00 am | Opening Remarks | Dr. Cynthia Chen and Dr. Ryan Wang |
| | | Dr. Daan Liang (NSF Program Director) |
| | | Dr. Bart Nijssen (Chair of UW-CEE) |
| 9:00 am - 9:30 am | Keynote Speeches | Dr. Yueyue Fan (UC-Davis): "*Where does domain expertise stand in transportation AI research?*" |
| 9:30 am - 9:50 am | | Dr. Steve Brunton (UW, NSF AI Institute Director) |
| 9:50 am - 10:35 am | Presentations **Data Related** (15 min each) | Dr. Cynthia Chen (UW): "*Biases in the big data and what we can do to unleash its potential*" |
| | | Dr. Xilei Zhao (UF): "*Enhancing Travel Behavior Analysis with Generative AI: Integrating Survey and Location Data*" |
| | | Dr. Prateek Bansal (NUS): "*Harnessing Household Travel Survey with Passively Collected Mobility Data to Generate Spatiotemporally Heterogeneous Digital Twins*" |
| 10:35 am - 11:05 am | Panel Discussion | Moderator (Dr. Sean Qian) |
| 11:05 am - 11:15 am | | Short Break (10 min) |
| 11:15 am - 12:00 pm | Presentations **Modeling and Demand Forecasting** (15 min each) | Dr. Carolina Osorio (Google Research, HEC Montréal): "*Combining physics-informed machine learning with transportation science methods to tackle large-scale urban mobility problems*" |
| | | Dr. Sean Qian (CMU): "*Data-friendly network modeling through computational graphs: learning, prediction, and decision making*" |
| | | Dr. Yan Liu (USC): "*Frontiers of foundation models for time-series*" |
| 12:00 pm - 12:30 pm | Panel Discussion | Moderator (Dr. Prateek Bansal) |
| 12:30 pm - 1:35 pm | | Lunch and Poster |
| 1:35 pm - 2:20 pm | Presentations **Innovations: New Technologies** (15 min each) | Dr. Yafeng Yin (UMich): "*Exploring the Role of LLM Agents in Activity-Based Microsimulation*" |
| | | Dr. Taka Yabe (NYU): "*Resilience of urban socioeconomic networks to behavioral changes*" |
| 2:20 pm - 2:50 pm | Panel Discussion | Moderator (Dr. Anthony Kuh) |
| 2:50 pm - 3:00 pm | | Short Break (10 min) |
| 3:00 pm - 4:00 pm | Brainstorming Sessions | Session 1: Data Related (Moderator: Dr. Takahiro Yabe) |
| | | Session 2: Revolutionizing the field of demand forecasting (Moderator: Dr. Yueyue Fan) |
| | | Session 3: New opportunities (Moderator: Dr. Ryan Wang) |
| 4:00 pm - 4:20 pm | | Reporting Back |
| 4:20 pm - 4:30 pm | | Wrapping Up |