



DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

Li Zhao

Research Assistant Professor Interview

Seminar on:

Decoding the Traffic: Unveiling Driver Behavior Through Trajectory Data Analysis



April 4, 2024



11:15 AM

Nebraska Hall

W213



ZOOM

Meeting ID: 958 4499 2892
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Dr. Li Zhao is a Research Engineer in the Nebraska Transportation Center at UNL. She has over ten years of project experience in intelligent transportation systems including experimental design, sensor testing, data collection and analysis, modeling, and deployment. Dr. Zhao has led research on the use of machine-learning methods in vehicular trajectory reconstruction and risk driver behavior identification in the field of driving tests for automated vehicles (AVs). Her research projects also extend to other intelligent transportation systems, including coordination and performance measure of advance warning systems on rural arterial roads and at smart work zone.

Abstract: In the realm of transportation engineering, understanding driver behavior is crucial for enhancing road safety and efficiency. This presentation delves into the intricate patterns of driver behavior across various traffic contexts, from intersection turning movements and expressway bottleneck breakdowns to highway-rail grade crossing safety. Through the lens of trajectory data, the presentation offers insights into the dynamics of lane changes, the impact of advanced driver-assistance systems, and the nuances of distracted driving perception and reaction times. By employing sophisticated data analysis techniques, such as machine learning methods, the study sheds light on the predictability of driver behavior based on factors influencing driver decisions and the potential of data-driven approaches in improving traffic management and safety.