Dada Zhang, Graduate Student

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Education

2022 – current   **Ph.D. student, University of Nebraska-Lincoln**
Major: *Construction Engineering and Management.*
Research interest:
Application of Autonomous Driving Systems in Transportation and Highway Infrastructure
Machine Learning and Statistical Modeling for Sensing in Civil Infrastructure

2019 – 2021   **M.S. Civil Engineering, Northern Arizona University**
Research interest: *Sensing and Data Analysis for Civil Infrastructure Systems*

2017 – 2019   **M.S. Statistics, Northern Arizona University**
Graduate teaching assistant:
Lectured on Quantitative Reasoning and Applied Statistics

2012 – 2016   **B.S. Construction Management and Mathematics, Northern Arizona University**

Research Publications

Journal Articles

1. C.-H. Ho, J. DeGeyter, and **D. Zhang**, "Five-year performance evaluation of geogrid reinforcement in low-volume unpaved roads using dynamic cone penetrometer, plate load test and roadway sensing," *Geotechnics*, vol. 3, no. 2, pp. 306–319, 2023. 🔗 DOI: 10.3390/geotechnics3020018.

2. **D. Zhang** and C.-H. Ho, "Distribution fitting and anova test to analyze pavement sensing patterns for assessments," *Built Environment Project and Asset Management*, vol. 14, no. 4, pp. 663–676, 2023. 🔗 DOI: 10.1108/BEPAM-10-2023-0185.

3. **D. Zhang**, C.-H. Ho, and F. Zhang, "Evaluating the impact of factors in vehicle based pavement sensing implementation: Sensor placement, pavement temperature, speed, and threshold," *Journal of Infrastructure Preservation and Resilience*, vol. 4, no. 1, 2023. 🔗 DOI: 10.1186/s43065-022-00065-2.

4. C.-H. Ho, M. Snyder, and **D. Zhang**, "Application of vehicle-based sensing technology in monitoring vibration response of pavement conditions," *Journal of Transportation Engineering, Part B: Pavements*, vol. 146, no. 3, 2022. 🔗 DOI: 10.1061/JPEODX.0000205.

Conference Proceedings

1. C.-H. Ho, **D. Zhang**, and M. Snyder, "State-of-the-art pavement sensing technology to evaluate the effect of climate change on resilient performance of highway infrastructure systems: A pilot study in the phoenix region," in *Intelligent Autonomous Systems 18*, vol. 795, Cham: Springer Nature Switzerland, 2024, pp. 469–479. 🔗 DOI: 10.1007/978-3-031-44851-5_36.

2. **D. Zhang** and C.-H. Ho, "Diagnostics of road conditions using acceleration sensor: Machine learning - lstm autoencoder and gaussian mixture model," in *2024 International Conference on Advanced Robotics and Intelligent Systems (ARIS)*, 2024, pp. 1–5. 🔗 DOI: 10.1109/ARIS62416.2024.10680001.

Skills

Languages	■	Strong reading, writing for English, Mandarin Chinese.
Coding	■	Python, R.
Misc.	■	Academic research, teaching.