

# 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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/10.1109/ARIS62416.2024.10680001).

## Skills

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