



Fully Funded Ph.D. Opportunities Starting in Fall 2026, Spring 2027 or Fall 2027

About the Opportunity

Dr. Jiachao Liu, incoming Assistant Professor in the Department of Civil and Environmental Engineering (CEE) at the University of Nebraska–Lincoln (UNL), is recruiting **two self-motivated Ph.D. students** to join his research group with flexible start dates in **Fall 2026, Spring 2027 or Fall 2027**. His group aims to develop AI-powered models and computational frameworks for next-generation transportation and resilient, interconnected infrastructure systems. The group values interdisciplinary research, collaboration, diversity, intellectual curiosity, and real-world impact, and is committed to creating an inclusive and supportive environment where students can grow as independent and responsible researchers, and prepare for successful careers in academia, industry, and beyond. Students will have opportunities to work on cutting-edge problems at the intersection of transportation, AI/ML, and system resilience. Topics include, but are not limited to:

- AI and ML for transportation network modeling
- Cross-infrastructure interdependencies and resilience
- Digital twin for cyber-physical-social systems
- Collaborative sensing and multimodal data fusion

Qualifications

Applicants with backgrounds in engineering, computer science, statistics, applied mathematics, public policy, or related fields are encouraged to apply. Students who hold or are pursuing a bachelor's or master's degree are welcome. Ideal candidates should have:

- Strong interest in AI/ML theory and applications in complex systems
- Solid quantitative and problem-solving skills, especially for conducting data-driven research
- Programming experience in Python, C++, or other languages (including strong vibe coding skills)
- Motivation to work in an interdisciplinary and collaborative environment
- Enthusiasm for continuous lifelong learning and a balanced life beyond research

About the PI

Dr. Jiachao Liu will join UNL as a tenure-track assistant professor in Fall 2026. He is currently a Postdoctoral Research Associate at Carnegie Mellon University, where he earned a Ph.D. in Civil and Environmental Engineering and an M.S. in Machine Learning. He also received an M.S. in Transportation Engineering from Southeast University, China and a B.E. in Transportation Engineering from Dalian University of Technology, China.

About UNL

The University of Nebraska–Lincoln is Nebraska's flagship R1 research university and a proud member of the Big Ten Conference, the Big Ten Academic Alliance, and the Association of Public and Land-grant Universities. The Department of Civil and Environmental Engineering supports interdisciplinary research across a wide range of areas and offers Ph.D. programs on both the Lincoln campus with a vibrant college-town environment, and the Omaha campus with a dynamic urban setting. UNL also provides a strong environment for AI-driven research, including the College of Engineering's PRAIRIE initiative which advances AI education and research, and The Holland Computing Center which offers high-performance computing resources for large-scale computational research.

How to Apply

If you are interested, please send an email to jiachaol@alumni.cmu.edu with the subject line "Ph.D. Applicant - Your Name – Start Semester". Please include your CV or resume, transcripts and a brief research statement (ideally half page, one page maximum). If you are a potential good fit, I will reach out to schedule a Zoom chat to discuss shared interests.