



UNIVERSITY of NEBRASKA
LINCOLN

1-2 Fully Funded PhD Positions Structural Engineering, Multi-Hazard Resilience, and AI-Enhanced Risk Analysis

University of Nebraska-Lincoln (UNL), USA | Fall 2026 / Spring 2027

Position Description

Dr. [Chenzhi Ma](#) at the University of Nebraska-Lincoln (UNL) is seeking 1-2 fully funded PhD students to join his research group starting in Fall 2026 or Spring 2027. The PhD research topics will focus on structural engineering, fire and multi-hazard infrastructure resilience, performance of advanced structural materials under extreme conditions, wildland-urban interface (WUI) fire risk, and AI-enhanced community-scale risk analysis.

About UNL

The University of Nebraska-Lincoln is Nebraska's land-grant research university, is a member of the Big Ten, and is classified as an R1 doctoral university with very high research activity. The Department of Civil and Environmental Engineering at UNL has strong research foundations and interdisciplinary collaboration opportunities in structural engineering, infrastructure resilience, transportation engineering, materials, sustainability, and disaster risk mitigation.

About the Advisor

Dr. Chenzhi Ma will join the Department of Civil and Environmental Engineering at the University of Nebraska-Lincoln as a Tenure Track Assistant Professor in August 2026. He received his Ph.D. in Civil and Systems Engineering from Johns Hopkins University in 2025, and his Master's. and bachelor's degrees in civil engineering from Tongji University and Central South University in 2021 and 2018, respectively.

Research Areas

Potential research directions include, but are not limited to:

- Structural engineering and performance-based fire design;
- Fire and multi-hazard resilience analysis of buildings and infrastructure;
- Experimental characterization and constitutive modeling of structural materials under extreme conditions;
- Wildland-urban interface fire risk modeling and community-scale risk assessment;
- Data-driven, machine learning, and physics-constrained AI methods for infrastructure risk analysis;
- Probabilistic loss assessment, life-cycle cost-benefit analysis, and sustainable structural design.

Applicant Qualifications

Applicants are expected to have:

- A bachelor's or master's degree in civil engineering, structural engineering, mechanics, mechanical engineering, fire protection engineering, materials engineering, or a closely related field;
- A solid background in structural engineering, engineering mechanics, mechanics of materials, numerical simulation, or data analysis;
- Strong motivation for research, initiative, responsibility, and the ability to learn independently;
- Good English reading, writing, and communication skills.

For English proficiency requirements, please refer to: <https://graduate.unl.edu/english-proficiency/>. Minimum requirements: TOEFL 79 / IELTS 6.5 / Duolingo 120. GRE is not required.

Application Instructions

Interested applicants are encouraged to send the following materials to Dr. Chenzhi Ma: **chenzhima26@gmail.com**. Please use the following email subject line:

Prospective PhD Student - [Your Name and Institute] - 26 Fall / 27 Spring

Required application materials:

1. Curriculum vitae (CV);
2. Undergraduate and graduate transcripts;
3. Representative publications or thesis, if available.