

PhD Position at Texas Tech University

One PhD position is available in the Ahmad Materials and Energy Research Group (AMERG) in the Mechanical Engineering Department at Texas Tech University starting in Jan 2023. AMERG is dedicated to fundamental material discoveries and developing innovative tools to accelerate the transition to renewable energy.

This opening is for *computational research* at the interface between materials and machine learning. The selected candidate will work with Dr. Zeeshan Ahmad on the following topics:

- Development and implementation of machine learning interatomic potentials for simulating long-range interactions in periodic systems
- First-principles method development and simulations of semiconductors and battery materials

More information about research and publications can be found at <https://ahzeeshan.github.io/>.

Required qualifications

- A bachelor's or master's degree in mechanical/electrical/chemical engineering, materials science, chemistry, physics, or a related field
- Strong programming skills and experience in one or more of Python, C++, MATLAB, Fortran, Julia. Ideal candidates will have experience with machine learning libraries such as PyTorch, TensorFlow, JAX, scikit-learn.
- Strong mathematical background and analytical skills
- Interest in materials and methods for energy sustainability and decarbonization

Interested candidates should apply to the PhD program in Mechanical Engineering at Texas Tech University using this link: <https://www.depts.ttu.edu/gradschool/admissions/howtoapply.php> and email Dr. Ahmad at zeeahmad@ttu.edu with their CV and transcript using the subject "PhD-Spring24-ML". Applications will be reviewed immediately upon receipt. Applications from underrepresented minorities are encouraged. Texas Tech is classified as an R1 research institution (very high research activity) by the Carnegie Classification of Institutions of Higher Education.