Khang Luong

kluong3@huskers.unl.edu | +1 (531) 248-6515 | Lincoln, NE 68508 | khangluong.org

OBJECTIVES

Dedicated Physics student with a solid academic background in Physics and Mathematics, deeply passionate about exploring the frontiers of Quantum Mechanics, Cosmology, and Theoretical Physics. As an intellectually curious learner committed to academic excellence, I aim to advance scientific understanding, contribute to groundbreaking research, and work toward developing a unified framework for describing the universe.

EDUCATION

University of Nebraska–Lincoln **Expected May 2028**
B.S. in Physics — Minor: Mathematics, Computer Science GPA: 3.97/4.00
Relevant Coursework: Modern Physics, Differential Equations, Problem Solving with Python, Discrete Structure

Pius X High School, Lincoln, NE **May 2024**
High School Diploma GPA: 3.98/4.00
Activities: Chess Club (President), Vietnamese Club, Swing Dance Club, National Honor Society, Math Tutor

RESEARCH EXPERIENCE

Undergraduate Research Assistant **September 2024 – Present**
Department of Physics & Astronomy, UNL

- Developed and optimized Python-based simulations for ionized molecular diffraction by integrating ionized atomic form factors into electron scattering models.
- Applied quantum mechanical scattering theory to simulate diffraction patterns and validated results against femtosecond electron pulse experimental data.

PROJECTS

Computational Modeling of Ionized Molecular Diffraction **2025 – 2026**

- Developed Python simulations of electron scattering patterns by integrating atomic form factors.
- Applied quantum scattering theory to generate synthetic diffraction data and compare with experimental results.

Khang Luong Portfolio Website **Launch: Summer 2025**

- Utilize this website to share fundamental concepts in Physics, Technology, and Engineering with non-scientific audience.
- Developed using HTML, CSS, JavaScript, and React with Vite; focused on accessibility and responsiveness.

HONORS & AWARDS

- UCARE Research Fellowship, University of Nebraska-Lincoln **2025 – 2026**
- College of Arts and Sciences Dean's List **2024 – 2025**
- 4^{th} Place – American Mathematics Competition, Pius X **2024**
- Distinguished Scholar, Pius X High School **2024**

SKILLS

Programming: Python (SciPy, NumPy, Matplotlib), JavaScript, HTML/CSS, LaTeX
Tools & Libraries: Git, VS Code, React, Vite, Sci-kit Learn (basic)
Scientific: Data analysis, Simulation modeling, Scientific writing, Basic ML concepts
Languages: English (Fluent), Vietnamese (Native)