

Liam M. Pohlmann

CONTACT INFORMATION	Graduate Research Assistant University of Illinois at Urbana-Champaign Dept. of Nuclear, Plasma, & Radiological Engineering	university email: liamp2@illinois.edu personal email: liam.pohlmann@gmail.com GitHub: @lipohlmann LinkedIn: inLiam Pohlmann
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RESEARCH INTERESTS	Advanced nuclear reactors, neutral particle transport, reactor multiphysics, scientific computing, open source software.
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MS, PhD	University of Illinois at Urbana-Champaign NUCLEAR ENGINEERING CONCENTRATION IN COMPUTATIONAL SCIENCE AND ENGINEERING Computational Reactor Physics Advisor: Dr. Rizwan Uddin, Dr. Paul Fischer	Aug 2025 – Current
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BSNE	University of New Mexico NUCLEAR ENGINEERING, MATHEMATICS OF COMPUTATION <i>Summa Cum Laude</i>	Aug 2021 – May 2025
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RESEARCH AND PROFESSIONAL EXPERIENCE	University of Illinois at Urbana-Champaign , Urbana, Illinois <i>Graduate Research Assistant, Nuclear Plasma and Radiological Engineering</i> Neutron transport and reactor multiphysics.	Aug 2025 – Present
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Idaho National Laboratory , Idaho Falls, Idaho <i>Computational Frameworks Intern</i> Expanded meshing capabilities in the MOOSE framework to recreate the Molten Chloride Reactor Experiment model for multiphysics simulations.	Summer 2025
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Oak Ridge National Laboratory , Oak Ridge, Tennessee <i>Research Student Internship (RSI) Program Intern</i> Simulation of nuclear reactor subchannel flow using computational fluid dynamics under PWR and LWR conditions. Explored methods in solving nonlinear partial differential equations using the finite volume method.	Summer 2024
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Idaho National Laboratory , Idaho Falls, Idaho <i>Student Undergraduate Laboratory Internship (SULI) Program Intern</i> Developed sensor anomaly detection methods using numerical methods and machine learning.	Summer 2023
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University of New Mexico , Albuquerque, New Mexico <i>Undergraduate Research Assistant</i> Developed modeling and simulation methods for ion beam heating in materials.	Feb 2023 – May 2025
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HONORS AND AWARDS	University Nuclear Leadership Program (UNLP) Fellowship	2025
	University of New Mexico Outstanding Undergraduate in Computational Math	2025
	New Mexico Society of Professional Engineers Outstanding Engineering Student of the Year	2025
	Future Leaders of Nuclear: Undergraduate Symposium Finalist	2024
	UNM Department of Nuclear Engineering Outstanding Junior Award	2024
	University Nuclear Leadership Program (UNLP) 4-Year Scholarship	2023, 2024

CONFERENCE PAPERS	[1] L. Pohlmann et al. “A Multiphysics Simulation Workflow Based on a Physics and Components Abstraction Applied to the Molten Chloride Reactor Experiment-Inspired LOTUS MSR”. In: <i>Proceedings of PHYSOR 2026 International Conference</i> (Torino, Italy). Politecnico di Torino, Apr. 2026. DOI: 10.5281/zenodo.20804044. URL: https://doi.org/10.5281/zenodo.20804044. [2] L. M. Pohlmann et al. “Sensor Anomalies Characterization and Detection via Machine Learning Methods for Nuclear Power Plants”. In: ASME 2024 18th International Conference on Energy Sustainability Collocated with the ASME 2024 Heat Transfer Summer Conference and the ASME 2024 Fluids Engineering Division Summer Meeting. American Society of Mechanical Engineers Digital Collection, Sept. 24, 2024. DOI: 10.1115/ES2024-131031. URL: https://dx.doi.org/10.1115/ES2024-131031 (visited on 01/02/2026).	
TECHNICAL REPORTS	[3] L. Pohlmann. <i>Solution of Burgers’ Equation Using the Finite Volume Method and Runge-Kutta 4 Time-Stepping under Various Boundary Conditions</i>. ORNL/TM–2024/3511, 2483416. Dec. 18, 2024, ORNL/TM–2024/3511, 2483416. DOI: 10.2172/2483416. URL: https://www.osti.gov/servlets/purl/2483416/ (visited on 01/02/2026). [4] L. M. Pohlmann, P. K. Bhowmik, and P. Sabharwall. <i>Sensor Anomaly Detection for Nuclear Reactor Systems Utilizing Linear Regression and K-Means Unsupervised Machine Learning</i>. Aug. 10, 2023. [5] E. Shemon et al. <i>ANL/NEAMS-25/3 FY25 MOOSE Usability Improvements: 3D Meshing Capabilities, Initiation of Geometry Support for Monte Carlo Tools, and Enhancement of MOOSE/Workbench User Input Interactions</i>. Argonne National Laboratory, Sept. 30, 2025. URL: https://www.osti.gov/servlets/purl/2588956 (visited on 01/02/2026).	
TEACHING EXPERIENCE	University of New Mexico, Albuquerque, New Mexico <i>Nuclear Engineering Department Teaching Assistant</i> NE 231: Principles of Nuclear Engineering <i>Mathematics Department Grader</i> MATH 375: Introduction to Numerical Computing MATH 316: Applied Ordinary Differential Equations <i>Center for Teaching and Learning STEM Tutor</i>	Spring 2024, Spring 2025 Spring 2023 – Fall 2024 Spring 2022 – Fall 2023
SCIENTIFIC COMPUTING SKILLS	Languages Build Systems Version Control Modelling & Simulation Other Tools	bash, C++, Python make, CMake git MOOSE, OpenMC, MCNP, OpenFOAM L^AT_EX, MatLab, SLURM, FreeCAD
PROFESSIONAL ORGANIZATIONS	Member , American Nuclear Society	2024 – Current
REFERENCES	<i>Available upon request</i>	