Liam Pohlmann

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SUMMARY

Liam is a driven and ambitious nuclear engineering student passionate about advanced fission reactor development, particularly in thermal hydraulics, heat transfer, and reactor design. His strong math skills drive innovative problem-solving, and he values integrity, transparency, and sustainability in his pursuit of a positive impact on the field of nuclear engineering.

EXPERIENCE

Idaho National Laboratory, Idaho Falls, Idaho

Jun 2023 – Aug 2023

- Student Undergraduate Laboratory Internship (SULI) Program
 - Published report under INL and SULI.
 - Explored topics in Sensor Anomaly Detection utilizing numerical methods and Machine Learning.
 - Developed strong questioning techniques to articulate specific needs and gather relevant information efficiently.
 - Effectively communicated professional goals and aspirations within the field, aligning personal growth with organizational objectives.
 - Embraced the importance of work-life balance and implemented strategies to maintain productivity and well-being.

University of New Mexico, Albuquerque, New Mexico

Feb 2023 – Current

- Undergraduate Research Assistant: Analysis and Modeling of Heat Diffusion in Materials Under Ion-Beam Irradiation
 - Supervised by Dr. Eric Lang, Assistant Professor of Nuclear Engineering
 - Conducting research on various materials and geometries, including material layering, to study heat diffusion phenomena. Solutions derived utilizing Finite Difference, Finite Element and/or Finite Volume Analysis.
 - Exploring potential applications and considering the research's viability for an undergraduate thesis project.

EDUCATION

University of New Mexico, Albuquerque, New Mexico

Aug 2021 - May 2025

- Pursuing B.S. in Nuclear Engineering and Mathematics of Computation
 - Current GPA: 4.13/4.00
- Notable Completed Coursework: Partial Differential Equations for Engineers; Introduction to Numerical Computing; Thermodynamics and Nuclear Systems, Introduction to Scientific Computing; Introduction to Transport Phenomena; Fusion Technology
- Notable Courses in Progress: Numerical Partial Differential Equations, Reactor Theory

SKILLS

LATEX, High Performance Computing, Linux/Unix, Python, MATLAB, Microsoft Office Applications, LibreOffice Applications

AWARDS AND HONORS

Student Undergraduate Laboratory Internship Program
University Nuclear Leadership Program Scholarship
School of Engineering Dean's List
Jun 2023 – Aug 2023
2023 – 2024
Spring 2022, Fall 2022, Spring 2023

ADDITIONAL EXPERIENCE

University of New Mexico Nuclear Engineering Grader
University of New Mexico Math Department Grader
University of New Mexico STEM Tutor

Jan 2024 – Current
Feb 2023 – Current
Jan 2022 – Dec 2023

PUBLICATIONS

Sensor Anomaly Detection for Nuclear Reactor Systems Utilizing Linear Regression and K-Means Unsupervised Machine Learning

Machine Learning Idaho National Laboratory
■ Publication number and link to be provided at a later time.

REFERENCES

Eric Lang, Ph.D.

University of New Mexico

- Assistant Professor of Nuclear Engineering
- Email: ejlang2@unm.edu Office: (505)-277-0772

Piyush Sabharwall, Ph.D.

Idaho National Laboratory

- Department Manager of Irradiation Experiment Thermal Hydraulics Analysis
- Email: piyush.sabharwall@inl.gov Office: (208)-526-6494 Cell: (208)-403-4502