NATALY R. PANCZYK

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EDUCATION

University of Illinois at Urbana-Champaign **May 2024**
Bachelor of Science in Nuclear, Plasma, and Radiological Engineering (NPRE)
Concentration: Power, Safety, and the Environment
GPA: 3.94/4.0 Minor: Political Science

Relevant Coursework: Neutron Diffusion & Transport, Probabilistic Risk Assessment, Radiation Detection Laboratory, Nuclear Systems Engineering and Design

Palatine High School **May 2020**
GPA: 5.148/4.0

EXPERIENCE

Intern – *MPR Associates* **May 2023 – July 2023**
- Analyzed a reactivity insertion accident for USNC Micro Modular Reactor using RELAP5-3D
- Developed maintenance dose tool for a fusion system
- Drafted a white paper on pairing municipal wastewater systems with nuclear microreactors for EPRI

Research Assistant – *Multiphase Thermo-fluid Dynamics Laboratory – UIUC* **Jan. 2023 – Present**
- Analyzing post-CHF conditions for downward flow boiling in a vertical square channel

Research Assistant – *Advanced Reactors and Fuel Cycles – UIUC* **Sept. 2020 – Dec. 2022**
- Began TRISO fuel analysis with MOOSE for the UIUC microreactor project
- Designed techno-economic analyses for clean hydrogen systems

Delegate – *Nuclear Engineering Student Delegation (NESD)* **Sept. 2022, Sept. 2023**
- Represented nuclear student perspectives and presented policy proposals to various organizations (DOE, NEI, NRC, Thirdway, Clearpath, etc.) and Congressional representatives in Washington, D.C.

SULI Intern – *Pacific Northwest National Laboratory* **June 2022 – August 2022**
- Science Undergraduate Laboratory Internship program through the DOE
- Automated nuclear waste management modeling quality assurance and data visualization techniques

TA NPRE 247 & 100– *Grainger College of Engineering – UIUC* **August 2021 – May 2022**
- Assisted in the NPRE department's two introductory courses (247: Modeling Nuclear Energy Systems, 100: Intro to NPRE) by grading projects and hosting office hours

Intern – *Idaho National Laboratory* **May 2021 – August 2021**
- Conducted a technoeconomic analysis on the feasibility of implementing microreactors into a clean steel manufacturing scheme using Temoa, an open-source energy system optimization model

ACTIVITIES

Co-President – Women in Nuclear UIUC Student Chapter **May 2022 – Present**
Outreach Chair – American Nuclear Society UIUC Student Chapter **May 2021 – May 2022**
Student Conference Socials Chair– American Nuclear Society UIUC Student Chapter **Nov. 2021 – April 2022**

AWARDS

Robert M. Stephens Engineering Scholarship **July 2023**
Sargent & Lundy Engineering Scholarship **July 2023**
Roy G. Post Waste Management Scholarship **Dec. 2022**
Nuclear Energy Undergraduate Program (NEUP) Scholarship **April 2022, April 2023**
NPRE Rising Undergraduate Research Award **May 2021**

SKILLS

Fluent in English & Spanish, Code: Python, Git, LATEX, & MATLAB