Kayla Clements

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Education

Bachelor of Science in Nuclear Engineering December 2019

University of Florida

- GPA: 3.64/4.00
- Minor: French and Francophone Studies

Work Experience

Research Assistant April 2017 - Present

University of Florida, Nuclear Engineering Department

- Processed the ENDF/B-VIII.0 evaluated cross section libraries with the AMPX code system in SCALE using HiPerGator, the University of Florida's supercomputer
- Generated and tested the continuous energy and problem-independent multigroup cross section libraries to be included in the next release of SCALE
- Studied effects of terrain and surrounding developed areas on the atmospheric dispersion of Argon-41 leaving the UFTR using MCNP and MATLAB to 3D model the Ar-41 plume

National Nuclear Data Center Intern June 2018 - August 2018

Brookhaven National Laboratory, NY

- Wrote a bash shell script to automate runs of EMPIRE, a nuclear reaction code, and analyze the data
- Generated reliable evaluated files across the whole nuclide chart, including nuclei off-stability
- Implemented a previously developed adiabatic model to describe statically-deformed nuclei in the rare-earth region and applied it to all isotopes of Gadolinium and Tungsten

MCNP Technical Project April 2018

University of Florida, Nuclear Engineering Department

- Modeled the steady-state C5G7 benchmark, a 16 assembly LWR mini-core, in MNCP
- Calculated eigenvalue and thermal and fast flux using MCNP

Involvement

Finance Director and Women in Engineering Panel Director September 2016 - April 2018

American Nuclear Society UF National Conference Team

- Created and maintained monetary records for a proposed budget of approximately $200,000 and worked with committee members to allocate funds
- Maintained relationships with organizations who contributed monetarily to the conference and panelists for a Women in Nuclear panel

Benton Engineering Council Representative January 2018 - May 2018

Theta Tau Professional Engineering Fraternity

- Promoted Theta Tau's campus involvement by organizing and participating in events through the College of Engineering and campus as a whole
- Acted as a liaison between Theta Tau and the Benton Engineering Council, the executive and legislative coordinating body for students and organizations in the College of Engineering

Relevant Coursework and Skills

- Radiation Interactions and Sources, Reactor Analysis and Computation, Reactor Thermal Hydraulics, Radiation Detection and Instrumentation, Radiation Shielding
- MATLAB, MCNP, Bash scripting, Linux systems
- Conversational Spanish and French