

Emma Engineer

Knoxville, TN • Jsmit77@vols.utk.edu • linkin.com/in/jane-smith

EDUCATION

University of Tennessee, Knoxville
Bachelor of Science in Nuclear Engineering
Minors: Leadership Studies, Physics

Expected Graduation: May 20XX
GPA: 4.00
Summa Cum Laude

INDUSTRY EXPERIENCE

Fuel Rod Design Intern, Westinghouse Electric Company, Pittsburgh, PA

June 20XX – August 20XX

- Performed feasibility study for an in-rod temperature sensor by modeling rod behavior in various configurations
- Created a program for analytical strain margin recovery to support safe implementation of advanced fuel products

Engineering Intern, United Cleanup Oak Ridge (UCOR), Oak Ridge, TN

June 20XX – May 20XX

- Supported the Transuranic Waste Processing Center (TWPC) via equipment sourcing and document management

Engineering Co-Op, Southern Nuclear Company

August 20XX-May 20XX

- **Rotation 1: BWR Fuels Engineering** – Gained experience simulating BWR steady state core behavior
 - Core Physics Evaluation: Created and analyzed cycle specific core physics cases for Plant Hatch's operations training simulator
- **Rotation 2: Reactor Engineering, Plant Farley** – Became familiar with engineering systems at a nuclear power plant
 - Rod Cluster Control Assembly (RCCA) Tracking Database: Improved RCCA tracking methodology by automating projected cycle acceptability calculations
- **Rotation 3: Reactor Engineering, Plant Vogtle** – Supported refueling outage fuel inspections and in-core detector troubleshooting
 - Inverse Count Rate Ratio (ICRR) Analysis Tool: Diversified sensor indications to provide more accurate data to the Reactor Engineering team during startup
- Qualifications: PWR New and Irradiated Fuel Inspections (Manufactured by Westinghouse), Core Verification, Special Nuclear Material Inventory, Radiation Worker Training, Fall Protection Safety Training

RESEARCH EXPERIENCE

Undergraduate Researcher, Nuclear Engineering Department UTK, Knoxville, TN

January 20XX – May 20XX

- Analyzed and improved thermal hydraulic models to be used for high burnup advanced reactor computational research
- Improved computational research skills through debugging and problem solving

Research Assistant, Nuclear Engineering Department UTK, Knoxville, TN

January 20XX – May 20XX

- Assisted in manufacturing of nuclear thermal propulsion (NTP) fuel matrix candidates for a NASA funded project
- Undergrad Research Poster: Examined grain size uniformity in sintered Moly-Tungsten alloy (potential NTP fuel matrix)

LEADERSHIP/VOLUNTEER EXPERIENCE

Co-Lead Ambassador, Engineering Professional Practice Office, UTK

August 20XX – Present

- Led Job Expo planning and preparation: managed over +230 companies at a single expo
- Reviewed resumes and prepared elevator pitches/interview skills to assist students in gaining internships/co-ops

Member, Alpha Nu Sigma Honors Society, UTK

May 20XX – Present

Vice-President, Women in Nuclear Organization, UTK

August 20XX – May 20XX

- Public speaking, event planning, peer mentoring, and professional development

Scholar, Honors Leadership Program, UTK

August 20XX – Present

SKILLS/AWARDS

Integrated University Program Scholarship, Department of Energy

20XX, 20XX, and 20XX

Student Service Award, Nuclear Engineering Department, UTK

20XX

Top GPA Award, Nuclear Engineering Department, UTK

20XX, 20XX, 20XX, and 20XX

Software: Python, MATLAB, CASMO-5, SIMULATE-5, HTML, MOOSE, BISON, MCNP, AutoDesk (AutoCAD, Fusion 360)