

Mason Fox

Virginia Beach, VA 23464

Mfox48@vols.utk.edu

717-940-8702

Summary:

Nuclear engineering graduate student with naval reactor operations experience and research focus in computational modeling and simulation, thermal-hydraulics, nuclear fuel performance, and reactor safety.

Education:

Master of Science – Nuclear Engineering

The University of Tennessee, Knoxville – Knoxville, TN

Research Topic: *Fuel-to-Coolant Thermomechanical Behaviors Under Transient Conditions*

January 2022 - May 2024

GPA: N/A

Advisor: Dr. Nicholas Brown

Advanced Nuclear Power Course

Naval Nuclear Power School, U.S. Navy – Goose Creek, SC

February 2019 - August 2019

Completed with Distinction

Bachelor of Science - Nuclear Engineering

The Pennsylvania State University – University Park, PA

May 2018

GPA: 3.67

Skills and Qualifications:

- Programming – Fortran, C++, Python, Git
- Linux – User, Basic Admin
- Nuclear Operations
- Active DoD Security Clearance – TS/SCI Eligible
- Simulation – MOOSE, Monte Carlo, CFD
- Team Leadership and Management
- EIT Certification – Pennsylvania
- Technical Schematics – Mechanical, Electrical

Work Experience:

Assistant Reactor Training Officer – Nuclear Maintenance Training Group, U.S. Navy

November 2020 - Present

- Supported training, operations, and maintenance for reactor departments onboard 7 aircraft carriers on the east coast.
- Managed 4 technical library and administrative staff, assisting in efficient resolution of reactor plant maintenance issues.
- Spearheaded efforts to improve operator training materials, greatly improving clarity and technical accuracy.
- Updated requirements for personnel qualification programs, ensuring sufficient operator knowledge and performance.
- Revised nuclear policy notes to disseminate essential administrative and technical guidance to the fleet.

Propulsion Plant Watch Officer – USS Dwight D. Eisenhower, U.S. Navy

March 2020 - November 2020

- Directed the operation and maintenance of the nuclear propulsion plant of an aircraft carrier as control room supervisor.
- Managed a team of control room, electrical, and mechanical operators, providing 90+ hours of safe reactor operation.
- Verified maintenance plans met requirements for equipment and personnel safety, with no incidents or near-misses.
- Demonstrated detailed knowledge of plant systems and procedures, receiving top scores on written technical exams.

Reactor Operations Trainee – Nuclear Power Training Unit Charleston, U.S. Navy

August 2019 - March 2020

- Qualified as a supervisory operator (Engineering Officer of the Watch) on a submarine nuclear plant.
- Led a team of operators in reactor startups, shutdowns, at-power operations, and emergency response drills.
- Developed skills required to supervise and direct the operation and maintenance of naval reactor plant systems.

Health Administrator – Naval Health Clinic Charleston, U.S. Navy

August 2018 - February 2019

- Supervised 8 medical record technicians in daily medical records tasks and handled administrative personnel matters.
- Oversaw the medical record archiving process, clearing a 2-year backlog and facilitating access to medical information for hundreds of veterans and their family members.

Volunteer Experience/Professional Service:

Junior Working Group Member – Standards Committee, American Nuclear Society

February 2022-Present

- Contributed to the revision of ANSI/ANS-10.7 “Non-Real Time, High Integrity Software for the Nuclear Industry.”
- Established standards of best practice for development and quality assurance of simulation software used in nuclear reactor design and analysis.