

MARK DAILEY

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EDUCATION

Texas A&M University, *Bachelor of Science (BS) Nuclear Engineering* – College Station, TX

May 2020

SKILLS

Tools: LabVIEW, Microsoft Office Suite, SOLIDWORKS, Lean Six Sigma

Languages: Python, MATLAB, MCNP, JavaScript

Certifications: CSSYB, CQPA, CSWA, FE Certification, HAZWOPER, IATA, DOT HAZMAT

(Eff. 2021)

PROJECTS

Reactor Decommissioning Waste Transportation

- Developed a secure logistics solution to deliver spent fuel between the specific reactors and their respective waste facilities using design basis threat analysis.

Sodium-Cooled Fast Reactor Design

- Constructed a Python model to determine the criticality configurations for a reactor while altering the size and fuel lattice of the core.

Mobile Brachytherapy Treatment Facility

- Created a radiation shielding design for a mobile brachytherapy unit in MCNP as well as implemented security measures to prevent radiological material theft.

Remote Radiation Detection Robot

- Designed a robot with a detector system to be used in detecting radioactive sources in hazardous environments.

Automated Pill Sorting Device

- Programmed an automated pill sorting device using LabVIEW in order to deliver prescriptions with over 99.4% accuracy.

Waterford Reactor Design

- Optimized the fuel loading of the Waterford III reactor in order to extend its average operating lifecycle by six months.

TRISO Fuel Analysis

- Studied multiple chemical production methods of multi-layered TRISO fuel in fast reactors.

PROFESSIONAL EXPERIENCE

TEXAS A&M UNIVERSITY – College Station, TX

November 2020 – Present

Assistant Health Physicist

- Independently perform radiation contamination surveys, radiological material collection, and processing across university facilities.
- Assist in Cyclotron operations, ensure interlock security and monitor for radiation leakage outside of the system.
- Oversee the delivery of radioactive materials, making sure packages are secured according to legal guidelines.
- Field test instruments and perform calibration and maintenance as per device specifications.

INDEPENDENT FINANCIAL – McKinney, TX

September 2020 – November 2020

Quality Control Specialist

- Ensure accuracy of account data by review of customer documentation and upholding integrity of deposit accounts.
- Maintain record of completed quality control documentation by ensuring all account requirements are met and reviewed.
- Demonstrate a general level of knowledge of federal banking regulations through daily quality assurance operations.

SABATA CONSULTING LLC – San Angelo, TX

July 2020 – September 2020

Independent Contractor

- Support the development of an interactive geological database by digitizing 4,135 oil well records from the United States Department of the Interior from the years 1917 – 1985.

MOSHER HALL COMMUNITY COUNCIL – College Station, TX

September 2016 – May 2017

President

- Coordinated and acquired the funding for an across-campus event with the help of the south side dormitory councils and a combined budget of \$1.5K.
- Managed a \$1.2K budget to coordinate events and create an inclusive community to foster a sense of belonging and promote networking among students.