

William Britz

✉ will@britz.net ☎ (443) 515-0435 [in /william-britz](https://www.linkedin.com/in/william-britz)

SUMMARY

A highly motivated and detail-oriented Mechanical Engineering student with hands-on experience in fusion, nuclear, and manufacturing engineering. Proficient in CAD software including CREO, SolidWorks, and ANSYS, with expertise in thermal and structural analysis. Demonstrated ability to design, optimize, and analyze complex components while contributing to the development of innovative solutions in cutting-edge research environments. Strong interpersonal skills with experience in leading team-building activities and effectively communicating technical information. Eager to apply advanced engineering knowledge in a dynamic, professional setting.

WORK EXPERIENCE

Oak Ridge National Laboratory

May 2024 - August 2024

Fusion Engineering Intern

Oak Ridge, TN

- Improved and optimized the target dump plate design based on simulation results, enhancing the versatility of MPEX's experimental capabilities.
- Performed thermal and structural analysis on Plasma Facing Components using ANSYS 2024 to ensure design integrity.
- Represented ORNL at TOFE 2024, participating in seminars focused on Plasma Facing Component (PFC) design.

Oak Ridge National Laboratory

May 2023 - August 2023

Fusion Engineering Intern

Oak Ridge, TN

- Utilized CREO and SolidWorks CAD software to design Plasma Facing Components for advanced plasma research.
- Developed detailed manufacturing and maintenance plans for a linear plasma device.
- Created and presented a design timeline poster, reviewed by the MPEX design board.
- Organized and led team-building activities to enhance peer morale and collaboration.

Idaho National Laboratory

May 2023 - July 2023

Nuclear Engineering Intern

Idaho Falls, ID

- Conducted research on prototype fuel experiments at the TREAT reactor to support experimental validation.
- Performed error analysis on simulated fuel experiments using MCNP code to ensure accuracy and reliability.
- Developed and maintained a comprehensive database for experimental data, streamlining data collection and analysis.

Knorr Brake

February 2022 - May 2022

Manufacturing Engineering Intern

Westminster, MD

- Utilized CREO CAD software to design and organize a comprehensive database of machinery component blueprints.
- Collaborated with the machine shop team to enhance communication and ensure alignment on design plans.
- Streamlined workshop layout to optimize assembly operations and improve overall efficiency.

EDUCATION

University of Maryland

May 2025 (Expected)

Bachelor of Science, Mechanical Engineering

College Park, MD

INVOLVEMENT

American Nuclear Society, UMD Chapter

September 2023 - May 2025

President

College Park, MD

- Re-established the University of Maryland chapter of the American Nuclear Society (ANS).
- Coordinated on-campus events and actively promoted student engagement in the organization.
- Organized and hosted an online webinar with ANS National President, Lisa Marshall.
- Presented fusion research at the Spring 2025 ANS conference, contributing to academic discussions.