

BARRETT SCHWALL

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EDUCATION

The University of Tennessee, Knoxville, Tickle College of Engineering

Knoxville, TN

BS in Mechanical Engineering, interested in pursuing MS degree

Graduation: May 2025

Major: *Mechanical Engineering*

Cumulative GPA: 3.23/4.00

PROFESSIONAL EXPERIENCE

US ITER – Oak Ridge National Lab

Oak Ridge, TN

ICH Systems Intern

May 2024 – August 2024

- Utilized computer aided design software SolidWorks to design a suitable microphone enclosure for a transmission line test stand.
- Intentionally revised and improved upon initial design to finalize an enclosure that allows for ease of assembly, adjustability, reliability and maintainability, and keeping a compact geometry.
- Acquire and process signal data using the Signal Processing Toolbox in the MATLAB program to optimize signal accuracy and improve microphone separation distance.

US ITER – Oak Ridge National Lab

Oak Ridge, TN

Analysis Group Mechanical Engineering Intern

August 2023 – December 2023

- Performed structural analysis for the Material Plasma Exposure Experiment on the ORNL main campus using computer programs ANSYS Workbench and SpaceClaim.
- Worked on piping analysis for the Electron Cyclotron Heating Cooling Water system for ITER using computer programs CAESAR II and Microsoft Excel.
- Completed a wide range of project management tasks using Microsoft Office applications.
- Collaborated with other members of the team to perform such tasks and participated in meetings and discussions.

Firebirds Wood Fired Grill

Knoxville, TN

Server

January 2022 – August 2023

- Provided quality customer service to restaurant guests.
- Proficiently multitask jobs and responsibilities within the restaurant and work with coworkers to efficiently provide guests with a positive experience.

LEADERSHIP

Young Life

Knoxville, TN

Volunteer Leader, the Webb School of Knoxville

March 2021 – Present

- Organized events with a team of 13 directed toward engaging up to 100 high school students.
- Committed significant time weekly to mentoring and leading a group of students.

SKILLS AND COURSE EXPERIENCE

- Proficient in Microsoft Office, MATLAB, ANSYS, CAESAR II, and SolidWorks Associate Certified
- Higher level mathematics: Calculus III, Differential Equations, Matrix Algebra, System Dynamics
- Departmental Courses: Statics, Dynamics, Mechanics of Materials, Thermodynamics, Heat Transfer, Machine Design, Computer Aided Design, Thermal Engineering, Mechanical Vibrations, Principles of Additive Manufacturing
- Problem Solving
- Teamwork and Communication