

ABIGAIL SIMON

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WORK EXPERIENCE

Engineering Senior Design, PeakView Environmental — *Team Lead* 2024 - PRESENT

- Lead a team of six interdisciplinary students specializing in mechanical, electrical, and biosystems engineering, ensuring timely completion of project milestones and maintaining efficient project management processes
- Engineer a mobile oil refining module, transforming raw pyrolysis oil into high-quality fuel for disaster relief efforts in island communities
- Design and test a portable oil refinement prototype, integrating materials science engineering principles; develop detailed system diagrams, performance tests, and cost estimates

Department of Materials Science and Engineering — *Outreach Director* 2021 - PRESENT

- Lead 30+ volunteers in the planning and execution of 50+ STEM outreach events to reach 4,000+ K-12 students from 40+ schools across the state, promoting materials science and engineering as a career pathway
- Design and implement educational programs and experiments which introduce students to fundamental materials science concepts and cutting-edge technologies
- Establish and maintain partnerships with five community organizations who share a vision for increasing STEM engagement and support

Baker Hughes — *Materials Science and Engineering Intern* SUMMER 2023

- Collaborated with the Advanced Manufacturing team on polymer characterization for energy systems, focusing on sustainability and performance
- Utilized the VHX-1000 Microscope to conduct detailed post-test analysis of Backup and O-ring systems, leading to improved understanding of material durability under operational conditions
- Operated the C-THERM and Differential Scanning Calorimeter to accurately measure thermal conductivity and glass transition temperatures of various elastomers and thermoplastics, contributing to material selection and performance optimization
- Analyzed data to interpret test results and support the design of future materials with improved thermal and mechanical properties and
- Delegated responsibility by supervisor to draft, review, and submit technical project finding reports for leadership review

Citi Women in I.T. Internship — *Intelligence Process Automation Team* SUMMER 2022

- Analyzed and optimized business processes through data analysis to enhance operational efficiency and accuracy
- Focused on process automation using Automation Anywhere and Xceptor

LEADERSHIP EXPERIENCE

University of Arizona Hillel — *President* 2021 - PRESENT

- Partner with the organization staff to plan and execute over 50+ events and activities, enhancing community engagement and cultural awareness for the organization's 250 students
- Co-found and co-lead a student choir, Chai Notes, to perform at Hillel and University events

AWARDS & RECOGNITION

- Departmental Honors for Sophomore in Materials Science and Engineering, 2022
- Girl Scouts Young Woman of Distinction, 2020 - Awarded for outstanding Gold Award Project
- Girl Scouts Gold Award, 2019 - Designed and implemented a diversity and inclusion workshop for teenagers

EDUCATION

University of Arizona, *Tucson, Arizona*; Anticipated Graduation
Major - Bachelor of Science, Materials Science and Engineering; Minor - Classics

ANTICIPATED MAY 2025

SKILLS: Experienced with SolidWorks, MATLAB, Microscopy, Hardness Testers, Process Automation, JIRA, and Microsoft Office