910 Echo Mountain Dr. Stillwater, OK, 74075 (406) 880-1732 Samuel.Hiltz@okstate.edu

Samuel Hiltz

EDUCATION

Oklahoma State University | Stillwater, OK

Bachelor of Science in Aerospace Engineering (BSAE) Bachelor of Science in Mechanical Engineering (BSME) Bachelor of Science in Applied Physics (BS) Expected May 2026 3.299 GPA

WORK EXPERIENCE

Teaching Assistant – MAE3153 Introduction to MAE Design

December 2024 - Present

- Assisted with the design and implementation of mechanical engineering design elements for teams in a class robotics competition
- Graded team design progress reports and individual mechanical design assignments

Research Assistant – NASA Icing Sensor, Dr. Alyssa Avery

September 2024 – Present

- Assisted with the development of an icing sensor for NASA and the American Physical Society
- Developed a sensor to detect the formation of ice on UAV airfoils in given atmospheric conditions

Research Assistant - Rubidium Bose-Einstein Condensate, Dr. Yingmei Liu

January 2024 – June 2024

- Assisted with the development of a Bose-Einstein Condensate using ultracold rubidium gas
- Lab group demonstrated that well-designed driven lattices are versatile tools to simultaneously tune multiple key parameters for manipulating phase diagrams of spinor gases with negligible heating and atom losses

Research Assistant - Perfect Point E-Drill CRADA, Dr. Kurt Rouser

August 2023 – June 2024

- Assisted with improving the process and effectiveness of an electrical discharging machine used in the removal of fasteners and rivets from aircraft equipment
- Conducting project with oversight from, and in conjunction with, Tinker Air Force Base

ACTIVITIES AND LEADERSHIP

NASA Micro-G NExT – International Space Station Team Member

August 2022 - July 2023

 Was a member of an undergraduate team that was contracted by NASA to research, design, and test a mechanically powered, automatic zip-tie installer for use in a micro gravity environment.

College of Engineering, Architecture, and Technology Student Council

January 2023 - Present

OSU High Power Rocketry Team

August 2022 - Present

August 2023 - Present

OSU Student Government Association

- CEAT Senator
- Oklahoma A&M Board of Regents Student Representative
- Oklahoma Regents Board for Higher Education Student Representative
- Oklahoma State University Faculty Council Student Representative
- OSU Academic Standards and Policy Committee Student Representative

American Physical Society

November 2024 - Present

American Institute of Aeronautics and Astronautics

Oklahoma State University Chapter President

August 2022 – Present November 2024 - Present

SKILLS

Manufacturing (Lathe, Mill, MATLAB Python LabVIEW C++ Wolfram Mathematica CNC, Welding, 3D Printing) Microsoft365 Simulink SolidWorks VBA