

ANNALISE HOOVER

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EDUCATION

THE OHIO STATE UNIVERSITY | COLUMBUS OH 43210

Graduated Spring 2022 Bachelors of Science in Physics and Computer Science Engineering

- Honors College Student, Cumulative Engineering GPA of 3.3
- Member of Society of Physics Students
- Undergraduate Teaching Assistant for Fundamentals of Computing Logic, Game Development, and Computer Networking for the Computer Science Engineering department
- Member of Ohio State Club Swimming, both participating in and organizing and orchestrating national swim meets through USA Master's Swimming
- Member of the Physics Department's Undergraduate Studies Committee

GILMOUR ACADEMY | 34001 CEDAR RD, GATES MILLS OH 44040

Graduated 2017 High School

- Cumulative GPA 4.0, Highest Honors
- Member of Gilmour First, Gilmour Academy's First Robotics team
- Member of Women in STEM
- Member of National Honor Society

EXPERIENCE

OSU DEPARTMENT OF ENGINEERING EDUCATION | 2070 NEIL AVE, COLUMBUS OH 43210

Teaching Assistant August 8th 2018 - May 12th 2020

- Teaching Fundamentals of Engineering, covering MATLAB coding, SolidWorks, and technical report writing
- Participating in curriculum execution, grading student assignments and projects, and enhancing student understanding through discussion
- Worked with the professor to teach a trial section of a refined curriculum and identify and solve execution issues

OSU OFFICE OF STUDENT LIFE | 1739 N HIGH STREET, COLUMBUS OH 43210

Office Assistant September 8th 2017 - May 15th 2019

- Provided a welcoming and helpful environment in the dorm while distributing mail, monitoring the phones, and handling equipment
- Provided security for student housing, de-escalation during student conflicts, and emergency management

HEXPOL COMPOUNDING | 14330 KINSMAN RD, BURTON OH 44021

Lab Intern June 6th 2017 – August 1st 2017

- Assisted chemists in diagnosing problems by researching and performing analytical tests
 - Performed calibrations on equipment to ensure accurate testing
 - Gained experience in using a TGA and reading corresponding graphs to identify chemicals
- Contributed to purchasing decisions
- Researched new product applications through analysis and consultation with chemists

KINETICO INCORPORATED | 10845 KINSMAN RD, NEWBURY OH 44065

Intern June 8th 2016 - August 12th 2016

- Assisted Manufacturing Engineers with technical tests and improved job instructions
- Performed research tests on products to diagnose problems and identify possible solutions
- Learned basics in engineering daily tasks and how to use CAD program in design

SOLO COMMUNITY CENTER | 35000 PORTZ PKWY, SOLO OH 44139

Lifeguard June 6th 2015 - August 12th 2018

- Red Cross certified lifeguard offering expertise in water safety
- Experience in all water rescue techniques, CPR, first aid, and swimming rescues
- Learned basics in engineering daily tasks and how to use CAD program in design

CHAGRIN VALLEY REC CENTER | 400 E WASHINGTON ST, CHAGRIN FALLS OH 44022

Swim Team Coach June 8th 2015 - July 30th 2018

- Created thorough, skill-appropriate workouts focusing on technique, endurance, and stroke development
- Aided in the improvement of swimmer's ability and speed throughout the season
- Organized swim meets, assigning events for swimmers based on skill and coordinating with other team's coaches before and during meets

RESEARCH

PHYSICS EDUCATION RESEARCH | ANDREW HECKLER

The Ohio State University Fall 2020, Fall 2021

- Improving undergraduate physics students' understanding of essential skills training, allowing for more student interaction and retention.
- Analysis and implementation of learning mechanisms used in physics education, and how they can be improved.
- Breaking down complex physics concepts into understandable chunks to increase student understanding.

NUCLEAR THEORY | RICHARD FURNSTAHL

The Ohio State University Fall 2020, Fall 2021

- Exploring the Bayesian uncertainty quantification of the infinite nuclear matter equation of state
- Analyzing, recording, and formalizing software packages required to implement the quantification algorithms.
 - Including an algorithm to analyze the convergence pattern of Effective Field Theory observables within the quantification algorithms.

SKILLS

- Working through complex problems, including advanced physics and computer programming
- Developing dynamic teaching methods for advanced technical concepts to best convey material to students with a variety of learning styles
- Directing complex projects as both a lead teaching assistant and a head of large organizational events

TECHNICAL

- Mathematica
- Anaconda
 - Anaconda Environments
 - Jupyter Notebooks
- Python
 - Creating input-based programs for Arduinos
 - Employing task-based programs for robots with input from light sensors and GPS
- C
- C++
 - Developing interactive systems with graphics through Virtual Studios
- Java
 - Developing deployable Android applications with searchable databases and a chatbot feature
- UNIX
 - Creating and implementing virtual UNIX environments
 - Manipulating virtual and actual disk space through repartitioning