

# Owen Young

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## EDUCATION

### University of Michigan

Ann Arbor, MI

*Bachelor of Computer Science*

*May 2024*

- **GPA:** 4.0
- James B. Angell Scholar; William J. Branstrom Award
- **Course Highlights:** Conversational AI, Intro to Machine Learning, Intro to Autonomous Robotics, Intro to Computer Organization

## EXPERIENCE

### Air Force Research Laboratory

Jun 2022 – Aug 2022

*Advanced Course in Engineering (ACE)*

- Developed medium-scale solutions with a 3 person team to 9 graduate-level cybersecurity challenge problems including hardware security, malware analysis and development, and pre and post exploitation attacking
- Planned and executed a weekly tactical operation in both the cyber and simulated physical spheres, culminating in a 58 hour strategic operational campaign competing with fellow interns
- Collaborated with a small research team to explore covert channel development in the Go coding language for the British Ministry Of Defence

### University of Michigan ECAS

Jan 2022 – Apr 2022

*Discrete Math Discussion Leader*

- Taught a supplemental instruction section for a computer science class expanding on each week's lectures
- Prepared original discussion problems related to each lecture's topics and worked students through each solution

### Mathnasium

May 2021 – Aug. 2021

*Math Tutor*

- Tutored gradeschool students in math over the summer, in order to grow confidence in ability in K-12 students
- Built flexibility adapting to many different learning styles children have, and different methods demanded by different topics

## PROJECTS

### Convolutional Neural Networks - *Introduction to Machine Learning*

Winter 2022

- Using Pytorch, studied aspects of training and interpreting a CNN with various models
- Compared multiple architectures to tune to a dataset of dogs, additionally compared performance with a modification to the dataset

### Kinematics - *Introduction to Autonomous Robotics*

Winter 2022

- Implemented Forward Kinematics on a simulated robot using a matrix stack through joint and link geometries
- Implemented Inverse Kinematics using a Jacobian Transpose and a Jacobian Pseudoinverse

## LEADERSHIP EXPERIENCE

### Air Force Reserve Officer Training Corps

Aug. 2020 – Present

- Air Force officer candidate training to develop leadership, management, planning, and organizational skills by preparing younger cadets for AFROTC Field Training
- ROTC Association Award, Society of the War of 1812 Award
- Wolverine Airmen Association: Presided over a club to raise funds for and support cadet training

### Arnold Air Society

Feb. 2021 – Present

- Organize and service events and accrue additional professional training as an Air Force officer candidate
- Candidate Training Officer: Develop candidates for the organization, developing their skills and a culture of service

## PROFESSIONAL SKILLS

**Programming Languages:** Java, JavaScript, Python, C/C++, Go

**Tools:** Git, Vim, Flask, PyTorch, Sliver

Intermediate Reading, Writing, and Spoken Proficiency in Japanese

*\*References available upon request*