



## Coursework

Algorithms and Data Structures  
Computer Architecture  
Operating Systems  
Software Design

## Awards

Honors College Research Scholars  
Program

## Presentations

Mid-Michigan Symposium for  
Undergraduate Research

## Organizations

Honors College First Year Council  
Chinese Student Coalition

## Skills

### Languages

Python, C++, Java, Javascript

### Tools

Git, Docker, WordPress

### Software

Photoshop CC

### Systems

Linux

## Experience

### DevoLab | Undergraduate Research Assistant

Michigan State University BEACON

September 2019 - Present

- Assistant in the Digital Evolution Lab under Dr. Ofria and Graduate Student Clifford Bohm researching mental model development through genetic programming and developing MABE software
- Tested additive learning in autonomous organisms through computationally evolving Artificial Neural Networks within a Modular Agent-Based Evolver to simulate autonomous vehicle decision making
- Researched genome frameworks for optimized memory usage, and created a structure that optimizes shift mutation on 75kb and larger genomes for MABE2 development

### MI-OSiRIS | Undergraduate Research Assistant

Michigan State University iCER

May 2019 – July 2019

- Investigated methods to integrate Amazon s3 storage with an Integrated Rule Oriented Data System to optimize bioinformatics workflow between Van Andel Institute and MSU
- Implemented iRODS automated ingest to apply metadata to virtual object paths upon registration into iRODS database from s3 bucket
- Created automated access policy list to enable grants to comange users to specified buckets from a YAML file using python boto3 module
- Participated in MSU iCER Advanced Computational Research Experience for Undergraduates funded by NSF CC\*DNI DIBBs under mentor Andy Keen

### Herculeze Technologies | Web Development Intern

Oakland University Incubator

May 2019 – August 2019

- Troubleshoot bug errors from existing website and added features to improve website functionality
- Changed manual address insertion by implementing Google Maps API auto-complete search within marketplace using Javascript, HTML, and Perl
- Created widgets using PHP within Wordpress for home page to enhance customer website navigation and easy website editing for future IT team

## Side Projects

### MSU Course Planner Web Application

August 2020 – Present

- Web application to plan future semesters for Michigan State University students based on major, minor, and previously accredited courses
- All programs and courses scraped from Michigan State University's website through selenium
- <https://caovicto.github.io/CoursePlanner/>

## Education

### BS | Computer Science

Michigan State University

August 2018 - Present

- Honors College
- GPA: 3.9/4.0
- Expected graduation December 2021