

## EDUCATION

University at Buffalo, The State University of New York	Expected May 2021
<i>Bachelor of Science, <b>Computer Science</b>, Software Systems Focus</i>	GPA: 3.97/4.00
<i>Bachelor of Arts, <b>Mathematics</b></i>	
Lorenzo di Medici International Institute	Winter 2019
<i>Study Abroad Experience in Florence, Italy</i>	

## WORK EXPERIENCE

Moog, Inc., <i>Computer Science Intern</i>	Summer 2020 - Present
<ul style="list-style-type: none"> <li>- Assist in creating an framework for creating a smart factory that can be expanded and tailed to client needs</li> <li>- Utilize Microsoft Azure Internet of Things resources for smart factory framework</li> </ul>	
CytoCybernetics, Inc., <i>Software Engineering Intern</i>	Fall 2019 – Summer 2020
<ul style="list-style-type: none"> <li>- Designed, debugged, and tested software applications used in biological research</li> <li>- Assisted in designing and creating user experiences for several applications</li> <li>- Created install scripts and user manuals for applications</li> <li>- Implemented algebraic and differential equations in Python for both analytical and numerical results</li> </ul>	
Ox Intel, Inc., <i>Software Engineering Consultant</i>	Summer 2020
<ul style="list-style-type: none"> <li>- Developed a minimum viable product GUI and data storage system for a data collection application</li> <li>- Assisted the Ox team in teaching the basics of software development and cloud computing</li> </ul>	
NSF-funded REU at the University of Nevada, Reno, <i>Undergraduate Researcher</i>	Summer 2019
<ul style="list-style-type: none"> <li>- Created an algorithm to find optimal placement of UAV access points for a temporary network</li> <li>- Articulated the project in an academic paper which was accepted by the IEEE WCCC 2020 conference</li> </ul>	
CyberMed Research Lab, <i>Undergraduate Researcher</i>	Winter 2020 – Present
<ul style="list-style-type: none"> <li>- Utilize a ResNet deep neural network to give a preliminary respiratory illness diagnosis</li> <li>- Engineer audio files to spectrograms for use with ResNet network</li> </ul>	
CSE 220: Systems Programing, <i>Teaching Assistant</i>	Fall 2019 - Present
<ul style="list-style-type: none"> <li>- Teach in recitation and office hour sessions to assist students</li> <li>- Present new ideas for the course in weekly meetings</li> </ul>	

## PROGRAMMING PROJECTS

On-Campus Event Manager Android Application	Spring 2020
<ul style="list-style-type: none"> <li>- Worked on a team of three to design an application using the Agile design process</li> <li>- Designed the UX for upcoming events, check in, and event creation pages</li> <li>- Utilized XML for front end, Java for backend, and MySQL for database</li> </ul>	
Optimal UAV Positioning for a Temporary Network Using an Iterative Genetic Algorithm	Summer 2019
<ul style="list-style-type: none"> <li>- Performed a literary review in the research subject area</li> <li>- Created a system to generate optimal positioning for drones to cover a map of users using a drone swarm                             <ul style="list-style-type: none"> <li>- Used genetic algorithms, mathematical calculations, and the concepts of transfer learning</li> </ul> </li> <li>- Performed testing and validation against previously existing solutions</li> </ul>	
C-Standard Compliant Memory Allocator	Spring 2019
<ul style="list-style-type: none"> <li>- Implemented <code>malloc()</code>, <code>calloc()</code>, <code>realloc()</code>, and <code>free()</code> for the C programming language</li> <li>- Utilized a multi-pool approach for small allocations and a bulk approach for large allocations</li> <li>- This implementation can be used to run single-threaded programs</li> </ul>	

## TECHNICAL SKILLS

C++	Java	Android Development	Git/GitHub	Python
C	JavaScript	LaTeX	MySQL	HTML
TensorFlow	Bash	Microsoft Office	Project Management	Agile Development

## ACCOMPLISHMENTS

Engineering Honor Society	Dean's List	AP Scholar with Distinction
Presidential Scholarship	Grace W. Capen Scholar	WNY Scholar Athlete

## LEADERSHIP/CO-CURRICULAR EXPERIENCES

Honors Student Council, <i>Treasurer</i>	Fall 2019 - Present
<ul style="list-style-type: none"> <li>- Plan social and volunteering events for students</li> <li>- Manage Honors Student Council funds</li> </ul>	
UB Association for Computing Machinery, <i>Member</i>	Spring 2018 – Present
University Heights Tool Library, <i>Volunteer</i>	Spring 2018
Honors Mentoring Program, <i>Mentor</i>	Fall 2018 - Present
<ul style="list-style-type: none"> <li>- Answer questions about the transition from high school to college and UB</li> </ul>	
Intramural Soccer and Volleyball, <i>Participant</i>	Fall 2017 - Present
UB Symphonic Orchestra, <i>Principal Bassist</i>	Fall 2017 - Present