Nicholas Ceccarelli

Email: *njceccar@buffalo.edu* | *Software Engineer* | GitHub: *github.com/nceccarelli* | LinkedIn: *linkedin.com/in/nceccarelli*

EDUCATION

University at Buffalo, The State University of New York — Expected May 2021
Bachelor of Science, ***Computer Science****, Software Systems Focus* — GPA: 3.97/4.00
Bachelor of Arts, ***Mathematics***

Lorenzo di Medici International Institute — Winter 2019
Study Abroad Experience in Florence, Italy

WORK EXPERIENCES

Moog, Inc., *Computer Science Intern* — Aug. 2020 - Present
- Assist in creating an expandable framework for smart vehicles that can be tailed to client needs
- Utilize Microsoft Azure Internet of Things (IoT) to program telemetry collection modules
- Implement data structures for data collection and transmission
- Help create an iOS application to display telemetry data sourced from IoT modules

CyberMed Research Lab, *Undergraduate Researcher* — Jan. 2020 – Present
- Use a ResNet neural network to detect respiratory illnesses such as COVID-19 from respiratory sounds

CytoCybernetics, Inc., *Software Engineering Intern* — Aug. 2019 – Jul. 2020
- Designed, debugged, and tested software, user experiences, and install scripts for several programs
- Implemented algebraic and differential equations in Python for both analytical and numerical results

Ox Intel, Inc., *Software Engineering Consultant* — May 2020 – Aug. 2020
- Developed a minimum viable product GUI and data storage system for a data collection application
- Assisted the Ox team in teaching the basics of software development and cloud computing

CSE 220: Systems Programing, *Teaching Assistant* — Aug. 2019 – Present
- Teach in recitation and office hour sessions to assist students
- Present new ideas for the course in weekly meetings

PROGRAMMING PROJECTS

On-Campus Event Manager Android Application — Jan. 2020 – May 2020
- Worked on a team of three to design an application using the Agile design process
- Designed the UX for upcoming events, check in, and event creation pages
- Used XML for front end, Java for backend, and SQL for database

UAV Positioning for a Temporary Network Using a Genetic Algorithm — May 2019 – Aug. 2020
- Conducted a literary review in the research subject area
- Created a genetic algorithm to optimally place of internet-connected drones to cover a map
- Performed testing and validation against previously existing solutions

C-Standard Compliant Memory Allocator — Apr. 2019
- Implemented `malloc()`, `calloc()`, `realloc()`, and `free()` for the C programming language
- Utilized a multi-pool approach for small allocations and a bulk approach for large allocations

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Java, JavaScript, Swift, HTML, SQL

Utilities: Bash, Git/SVN, Microsoft Office, Linux, Mac OS X, Microsoft Windows

Frameworks: Android Development, iOS Development, Project Management, Agile Development

LEADERSHIP EXPERIENCES & AWARDS

Honors Student Council, *Treasurer* — Aug. 2019 - Present
- Plan social and volunteering events for students
- Manage Honors Student Council funds

University Heights Tool Library, *Volunteer* — Feb. 2018 – May 2018

Honors Mentoring Program, *Mentor* — Aug. 2018 - Dec. 2020
- Answer questions about UB and the transition from high school to college

Intramural Soccer and Volleyball, *Participant* — Aug. 2017 - Nov. 2019

UB Symphonic Orchestra, *Principal Bassist* — Aug. 2017 - Present

Awards: Engineering Honor Society, Dean's List, Grace W. Capen Scholar, Presidential Scholar