

# Gabrielle Hyatt

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## EDUCATION

### **Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science**

*Bachelor of Science in Biomedical Engineering, Summa Cum Laude*

*May 2023*

*Master of Science in Biomedical Engineering*

*Expected May 2024*

Cumulative GPA: 3.96/4.00

Binghamton Merit Scholarship: September 2019 – Present; Dean's List (3.50/4.00 required): September 2020 – Present

## TECHNICAL SKILLS

Lean Six Sigma Green Belt (Summer 2022), Zygo NewView Optical Profilometer 7300, Keyence VHK-7000 Optical Microscope, ThermoFisher Apreo 2S SEM, Plasma Etch RIE, Microsoft Suite, G Suite, Solid Edge, Autodesk Inventor, Soldering

## PROFESSIONAL EXPERIENCE

### **Student Researcher**

### **Case Western Reserve University**

*Team Leader*

*May 2022 – Present*

- Optimize aerosol and direct write printing of strain gauge and bridge circuit to further development of a pressure sensitive glove
- Presented poster of research at CWRU Source Intersections
- Delivered summaries on the project and outcomes to director of lab, head researchers, professors, and graduate students

### **Acutec Precision Aerospace, Inc.**

### **Saegertown, PA**

*Intern*

*June 2021 – August 2021*

- Consolidated inventory or found replacements for the tool room employing a variety of criteria on 6000 tools
- Determined whether to keep, consolidate, recycle, or donate tools to local businesses
- Delivered an executive briefing on the project and outcomes to the President, Board of Directors, and fellow interns

## PROJECT EXPERIENCE

### **Live Cell Imaging Chamber Capstone Project**

### **Binghamton University**

*Team Member*

*August 2022 – May 2023*

- Developed a device to maintain >95% relative humidity for 48 hours to allow for live cell SRS imaging
- Won a department-wide pitch contestant to sell our device to hypothetical buyers
- Composed two reports and presented findings to fellow biomedical engineering students, professors, and teaching assistants discussing our device design, manufacturing, testing, and final product

### **EMG-Controlled Prosthetic Robotic Arm**

### **Binghamton University**

*Team Member*

*November 2021 – December 2021*

- Built a device to record EMG signals from human arm and convert recorded EMG signal to control a robotic arm

### **Microvascular Blood Flow of Sickle Cell Anemia Research Project**

### **Binghamton University**

*Team Leader*

*March 2021 – May 2021*

- Created a mathematical model of oxygenation using equations for blood flow, carrying capacity, and oxygen transport rate
- Compared the difference in oxygen distribution for healthy people and people suffering from sickle cell anemia using MATLAB
- Compiled an in-depth report and presentation of our findings for fellow students and faculty discussing our research and analysis

### **Coffee Maker for Persons with Hand Tremors**

### **Binghamton University**

*Team Leader*

*January 2020 – May 2020*

- Collaborated in a team of six engineering students to design a coffee maker safely operable by persons with hand tremors
- Created a 3D model of our design using Solid Edge
- Built a 130-page technical report including technical drawings, schematics, requirements, weighted criteria, and a full design report. This was presented to peers, professors, and teaching and lab assistants

## CAMPUS INVOLVEMENT

### **Division I Track and Field Team**

### **Binghamton University**

*Captain, Member*

*August 2019 – Present*

- Devote an average of 20 hours per week to training, practice, meets while successfully carrying a full class load
- Provide leadership and mentoring to 80 teammates
- Collaborate with coaching staff to build team cohesiveness, set personal goals, and develop strong communication skills

### **Student-Athlete Advisory Committee**

### **Binghamton University**

*Member*

*August 2021 – Present*

- Plan and organize program activities including volunteer service, donation events, and the Spread Respect Campaign

- Act as a liaison between students and administration to provide the best athletic experience for every athlete

### **Student-Athlete Well Being Committee**

### **Binghamton University**

*Member*

*October 2021 – Present*

- Implemented new initiatives to improve the mental health of all student athletes