

# RYAN CALLAGHAN

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## EDUCATION

### Stevens Institute Technology

*Bachelor of Engineering, Mechanical Engineering*

*Concentration: Biomedical Engineering*

**GPA: 3.97**; Honors: Dean's List, President's List, Presidential Scholarship

**Relevant Coursework:** *Manufacturing Processes and Systems, Engineering Design, Machine Dynamics and Mechanisms, Control Systems, Modeling and Simulation, Mechanics of Solids, Dynamics, Materials Science, Probability and Statistics, Heat Transfer, Engineering Economics*

**Expected May 2022**

Hoboken, NJ

### Staten Island Technical High School

*NYC Specialized High School (STEM)*

**Weighted GPA: 102.11**; Honors: President's List, National Honor Society

**Relevant Coursework:** *AutoCAD, Robotics, Mechanics, Electricity and Magnetism, Russian Language*

**June 2018**

Staten Island, NY

## SKILLS

Technical: SOLIDWORKS, Creo, ANSYS, Linkages, LabView, MATLAB, Simulink, AutoCAD, Arduino, Microsoft Excel, Microsoft Office, Bluebeam, 3D Printing, Technical Drawing/Drafting, C++

Other: Excellent leadership skills, communication skills, team-oriented

Certifications: Autodesk AutoCAD Certified, CPR, Lifeguarding/First Aid/ AED Certified

## WORK/VOLUNTEER EXPERIENCE

### Wearable Robotics Lab

*Assistant Researcher*

- Assisted in the research and development of a smart insole for populations with gait disorders to assist with functional rehabilitation, diagnosis, and assessment of movement disorders and injury prevention.

**January 2021- Present**

Hoboken, NJ

### WDF Inc.

*Drafting Intern*

- Learned and further developed skills such as AutoCAD 3D modeling, Bluebeam, and Microsoft Excel.
- Hands on experience with the creation and review of mechanical drawings.
- Successfully communicated with the Project Manager and Assistant Project manager to complete a series of given tasks.

**Summer 2020**

Mount Vernon, NY

### South Shore Swimming Club/ Stevens Institute of Technology

*Lifeguard/Swim Instructor*

- Learned and maintained proficiency in first responder skills such as First Aid and CPR to offer individuals in distress support.
- Successfully communicated to and taught kids from the ages of 3-18 how to swim.

**May 2015- Present**

Hoboken, NJ/Staten Island, NY

### College of Staten Island/ Hoboken Highschool

*Special Needs Swim Instructor (Volunteer)*

- Helped teach kids with developmental, physical, and learning disabilities how to swim.
- Required patience, commitment, and strong communication skills to get kids to cooperate.

**2014- Present**

Hoboken, NJ/Staten Island, NY

## ACADEMIC PROJECTS

### Stevens Institute of Technology

*Robot Project*

- Designed Robot both mechanically and electrically to perform a variety of tasks given by instructor.
- Used Arduino to program the code the robot used to complete certain tasks.

*Weather Station*

- Hands on Experience with sensors and data acquisition systems recording values of light, humidity, and temperature.
- Used Solidworks and 3D Printing software to design optimal structure to protect weather monitoring system.
- Programmed the system to publish data to an online server, and then used LabView to retrieve, and elegantly display this data.

*Speaker Crossover Network*

- Used MATLAB and Simulink to design a network which would amplify input audio, and then separate this input into high and low frequency ranges using filters.

## ACTIVITIES

### Stevens Men's Varsity Swim Team- Team Captain

*Collegiate Student Athlete*

- Able to Balance the grueling academic work of an Engineering Student with the dedication and effort required of a collegiate athlete.
- Developed a strong work ethic, communication skills, and teamwork abilities to be successful in academics and athletics.

**2018-Present**

**Tau Beta Pi - Engineering Honor Society**

**Kappa Sigma- Fraternity**