# Steven Wu

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#### **EDUCATION**

## Carnegie Mellon University - Pittsburgh, PA

Bachelor of Science in Computer Science, expected May 2023

Technical Skills: Java • C/C++ • ROBOTC • ROS • Robotics • XML • SML • GitHub • Linux • Windows • Swift

#### **WORK EXPERIENCE & VOLUNTEER SERVICE**

## NASA Johnson Space Center, Houston, TX

Jun 2019 – Aug 2019

Summer Robotics Academy Intern

- Collaborated with NASA robotics engineers and professional bomb technicians through the Combating Terrorism Technical Support Office (CTTSO) Bomb Tech Workshop
- Familiarized an international audience of bomb technicians with robotics design and repair
- Built stair- and ladder-climbing robots to accomplish bomb detection and threat recognition tasks

#### Clear Creek Independent School District, League City, TX

Elementary School VEX IQ Robotics Team Mentor

Sep 2016 - Jan 2019

- Guided elementary school robotics teams through full engineering design process over a 6-month competition season
- Taught 4<sup>th</sup>/5<sup>th</sup> graders how to brainstorm, communicate effectively, test prototypes, and develop a successful robot

Summer Robotics Camp Instructor

Jun 2017 - Aug 2017, Jun 2018

• Instructed middle schoolers on engineering principles through creating a competitive robot over a 1-week summer camp

## **PROJECTS**

# MoonRanger (Group)

Jan 2020 - Present

Software Documentation Lead, Navigation Programmer

• Developed navigation software and organized GitHub workflows for ice-finding moon rover mission

#### Beacon: Democratized Disaster Response (Group)

Sep 2019

- Designed location-tracking iOS app with Swift for natural disasters to coordinate local rescue operations
- Created during PennApps XX, a hackathon at the University of Pennsylvania

#### **EXTRACURRICULAR ACTIVITIES**

## **Carnegie Mellon Robotics Club**

Aug 2019 - Present

• Software and mechanical engineer in RobOrchestra - designed and constructed self-playing UkuleleBot

## FIRST Robotics Competition – FRC Team 118 The Robonauts

*Jan 2016 – Apr 2019* 

Public Outreach Coordinator, Software Programmer

- Organized outreach events to introduce robotics and STEM to students in our local community
- Wrote and debugged C++/XML for vision systems and autonomous routines under mentorship from NASA engineers

## **VEX Robotics Competition**

Sep 2016 - Apr 2018

- Team Captain, Software Lead, Drive Coach
  - Managed 6 team members to efficiently utilize time and resources to construct an effective robot
  - Negotiated and revised strategies with alliance partners before and during matches

#### Mu Alpha Theta/Math National Honor Society

Aug 2015 – May 2019

President, University Interscholastic League (UIL) Team Captain

- Organized, practiced, and competed in several math competitions throughout the school year
- Advocated student passion for math, generated opportunities for development and recognition through hosting contests

#### **NASA High School Aerospace Scholars**

Nov 2017 – Jun 2018

- Selected through competitive 4-month online course to attend 1-week onsite experience at Johnson Space Center
- Represented Aerospace Scholars program to Texas Rep. John Zerwas to promote benefits of funding STEM education

# **AWARDS & ACADEMIC ACHIEVEMENTS**

National Merit Scholarship Award Winner	Mar 2019
VEX Robotics World Championships First Seed	Apr 2018
FIRST Robotics Championship Finalist & Division Champion	Apr 2017
Zero Robotics Virtual Champions	Jan 2018
International Conference on Environmental Science & Technology (IC EST) 1st Place Poster Award	Jun 2018
Intel International Science & Engineering Fair (ISEF) Finalist	Mav 2019

- Engineered natural materials to reduce phosphorus to combat algae bloom in polluted aquatic environments
  - Presented research to international audience of graduate students and professors