

Steven Wu

Houston, TX | (346) 770-5030 | [stevenwu2019.github.io](https://github.com/stevenwu2019) | stevenwu@andrew.cmu.edu | [linkedin.com/in/stevenwu2019](https://www.linkedin.com/in/stevenwu2019)

EDUCATION

Carnegie Mellon University – Pittsburgh, PA

Bachelor of Science in Computer Science, expected May 2023

Concentration in Robotics, Minor in Innovation & Entrepreneurship

Technical Skills: Python • Java • C/C++ • JavaScript • CSS • SML • MATLAB • Robotics • LaTeX • GitHub • Linux • Windows

WORK EXPERIENCE

Facebook

Jun 2021 – Aug 2021

Software Engineer Intern, Instagram Reels

- Developed full stack internal tooling with JavaScript, React, CSS, Python, and Django
- Handled backend data fetching and communicated cross-functionally to optimize frontend workflow

Raven Industries

Jun 2020 – Aug 2020

Software Engineering Intern

- Researched and developed hybrid A*-based path planner to guide autonomous tractors to unload grain carts
- Collaborated with multidisciplinary team on product development in a startup environment
- Built dynamic model with Python to simulate motion of tractor-trailer systems and implemented behavior tree structure to integrate AutoUnload with existing AutoCart product line

NASA Johnson Space Center

Jun 2019 – Aug 2019

Robotics Academy Intern

- Collaborated with NASA robotics engineers and professional bomb technicians through the 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

RESEARCH & PROJECTS

MoonRanger

Jan 2020 – May 2020

Navigation Programmer, Software Documentation Lead

- Investigated path planning software and rad-hardening techniques for ice-finding moon rover mission under Red Whittaker
- Studied CI/CD pipeline to restructure and streamline software team's GitHub workflow

UkuleleBot

Sep 2019 – Feb 2020

- Designed and constructed 3D-printed frame, programmed actuators/servos on Arduino for self-playing ukulele robot

Beacon: Democratized Disaster Response

Sep 2019

- Designed location-tracking iOS app with Swift for natural disasters to coordinate local rescue operations

EXTRACURRICULAR ACTIVITIES

Teaching Assistant

Aug 2020 – Present

- Planned/led labs and held office hours for 15-150 Principles of Functional Programming
- Developed curriculum, taught material, and mentored students for 98-303 Intro to Freestyle Rap

Carnegie Mellon Robotics Club

Aug 2019 – Present

RobOrchestra Software Lead

- Software and mechanical engineer in RobOrchestra – designed robots to play instruments by themselves/with each other
- Set agenda and objectives for software meetings – led music generation algorithm project

Sweepstakes ("Buggy")

Sep 2019 – Present

Secretary, Student Pandemic Safety Ambassador

- Manufactured small carbon fiber vehicles for a single human occupant for annual campus tradition race

Carnegie Mellon Informatics and Math Competition (CMIMC) Organizing Team

Feb 2020 – Present

Software & Logistics Committee Member

- Planned and ran annual computer science/math competition for ~500 high schoolers from around the world

AWARDS & ACADEMIC ACHIEVEMENTS

Carnegie Mellon Swartz Center for Entrepreneurship Innovation Scholar

Apr 2021

Carnegie Mellon School of Computer Science Dean's List

Dec 2020

National Merit Scholarship Award Winner

Mar 2019

International Conference on Environmental Science & Technology (IC EST) 1st Place Poster Award

Jun 2018

- Engineered natural materials to reduce phosphorus to combat algae bloom in polluted aquatic environments