

# Oliver Zhang

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Versatile engineer with a background in developing electro-mechanical systems. Strong communication skills from working in a variety of leadership roles and highly collaborative teams.

## Education

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**B.S. in Mechanical Engineering,** May 2019  
Double Major Robotics QPA: 3.74  
Carnegie Mellon University Pittsburgh, PA

- Developed a search and rescue robot and a sumo robot in a team of three. Won two competitions in a class of 18 teams.
- Designed laser-cut acrylic bracket weighing 2.7 grams that held 40 pounds of weight.
- Designed robotic gripper that can hold onto a 20 kg mass while swinging in a semicircle arc.
- Programmed autonomous mobile robot with encoders and 2-D LiDAR using MATLAB.

## Work Experience

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**Mechanical Engineer Intern** Summer 2018  
Cooper Perkins, Inc. San Francisco, CA

- Developed a shape-shifting user interface in a small, highly collaborative team.
- Generated and refined concepts for a variety of projects and clients.
- Communicated with clients to understand and fulfill their requirements.

**Project Engineer Intern** Summer 2017  
Autel Robotics Pittsburgh, PA

- Implemented tracking and gesture recognition systems on a quadcopter in a team of three.
- Tested software using MATLAB and used C/C++ cross compilation for embedded execution.

**SI Leader** 2017 – Present  
Academic Development Pittsburgh, PA

- Designed and lead weekly collaborative learning sessions for thermodynamics and fluid mechanics.
- Collaborated with professors to best serve the students' interests.

## Projects

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**Dumpling Bot** 2018 – Present

- Designing and building an autonomous restaurant robot to deliver food from kitchen to table
- Focusing on design of mechanical components and integration of electronics
- Applied system engineering principles to manage and track project tasks
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**Amphibious Rescue Craft** 2016 – 2017

- Designed and developed amphibious vehicle for remote rescue. Funded by SURG and SHRG.
- Implemented controls and actuation using Arduino, Xbee, Python.
- Manufactured components using Solidworks, 3D printing, CNC machining.

## Leadership

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**Quadcopter Project** 2016 – 2018  
Mechanical team leader Pittsburgh, PA

- Designed and built custom sensor mounts, landing gears, and propeller guards
- Developed autonomous quadcopter for indoor navigation using ROS.

**CMU Robotics Club** 2017 – Present  
Secretary, Training Officer Pittsburgh, PA

- Organized meeting minutes and track club tasks.
- Designed and lead seminars to train members on rapid prototyping resources at Roboclub.

## Skills

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Critical Thinking	Prioritization	Teamwork
Python	C/C++	C#
SOLIDWORKS	Mastercam	MATLAB
ROS	Unity3D	Mandarin

## Interests

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Cooking food from around the world.  
Making unique video games and silly robots.

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