# Peter Wang

Curriculum Vitae

 2020	
 2020	

# Educational Background

BS Computer Engineering and Computer Science, University of Southern

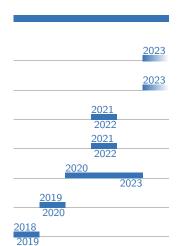
California, Los Angeles, USA

GPA: 3.95/4

BS Applied and Computational Mathematics, University of Southern

California, Los Angeles, USA

GPA: 3.95/4



## Honors & Awards

Provost's Research Fellowship

**Engineering Honors Program** 

**CURVE** Research Fellowship

**Academic Achievement Award** 

**USC** Dean's List

**FRC Innovation in Control Award** 

**FRC Regional Winner** 



## Professional Experience

**Research Assistant**, *Interactive and Collaborative Autonomous Robotics Lab*, Prof. Stefanos Nikolaidis, USC

- Develop CNN-based methods (subitizing and compactness model) and optimize placement accruacy to improve sampling efficiency in a geometric task and motion planning problem
- Develop simulation software using PyBullet and real-life robotics demo using ROS

2021

**Research Assistant**, *Dynamic Robotics and Control Lab*, Prof. Quan Nguyen, USC

- Worked on the design and control of a light-weight low-cost quadruped robot
- Co-lead the software control sub-team and develop impedance and force control on the robot legs

#### **Software Engineer Intern**, *Honeybee Robotics*, Altadena, CA

- o Developed an operator console on YAMCS Studio to communicate with the ground station YAMCS for displaying incoming telemetry data and sending control commands to the space mining drill
- Crafted a simulator for the drill using python that's able to emulate responses after receiving telecommand

## Research Interests

- Long-horizon Task and Motion Planning Problems
- Multi-agent Reinforcement Learning
- Safety Control and Reachability Problem
- Meta-Learning

## Teaching Experience

#### Lab Mentor

2023

**EE354 Intro to Digital Circuits**, *USC*, Los Angles, CA

Deliver lecture-style instructions and provide assistance to a group of 30 students in a weekly lab section

#### Course Producer



**CSCI360 Intro to Artificial Intelligence**, *USC*, Los Angles, CA

Answer Piazza posts and provide informative grading feedback for a 200-student class

2022

**EE109 Intro to Embedded Systems**, *USC*, Los Angles, CA

Provided hands-on help to a 30-student class during office hours and lab sections

## **Tutoring**

2019

#### **AP Computer Science & AP Physics**

- One-on-one teaching to four high school students on various subjects
- Demonstrated significant improvement in class grades and high AP scores

# Volunteer Experience

2020

FRC Team 2659 RoboWarriors Software Mentor, Bishop Alemany High School, Mission Hills, CA

- 300+ hours dedicated to mentoring high school students robotics team focusing on design, integration, and iteration for electrical, software, and control system equipment for autonomous robot
- Designed a course titled "Robotics: from Theory to Applications", and deliver a lecture for 2 hrs/week to students

#### Skills

>5 years Python, Java, C/C++, JavaScript, HTML, Git

>2 years PyBullet, ROS, Linux, MATLAB, LATEX