

Peter Wang

Curriculum Vitae

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Educational Background

2020

BS Computer Engineering and Computer Science, *University of Southern California*, Los Angeles, USA

GPA: 3.95/4

2020

BS Applied and Computational Mathematics, *University of Southern California*, Los Angeles, USA

GPA: 3.95/4

Honors & Awards

2023

Provost's Research Fellowship

2023

Engineering Honors Program

2021

CURVE Research Fellowship

2022

Academic Achievement Award

2021

2022

USC Dean's List

2020

2023

FRC Innovation in Control Award

2019

2020

FRC Regional Winner

2018

2019

Professional Experience

2022

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

- Develop novel learning and planning algorithms for multi-robot and human-robot systems
- Optimize placement accuracy in the Task And Motion Planning problem

2021

2022

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

2022

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

- 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

- Learning-based Task and Motion Planning
- Multi-agent Reinforcement Learning
- Safety Control and Reachability Problem
- Program Acceleration through Parallelization

Teaching Experience

Lab Mentor

2023

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

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

Course Producer

2023

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

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

2022

EE109 Intro to Embedded Systems, *USC*, Los Angeles, 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