

# Tao Chen

Los Angeles, CA 90007

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## EDUCATION

### University of Southern California

*Master of Computer Science in Intelligence Robotics*

**Los Angeles, CA**

*August 2017 - May 2019*

### Oregon State University

*Bachelor of Computer Science in Computer System*

**Corvallis, OR**

*September 2014 - June 2017*

## WORK & RESEARCH EXPERIENCE

### Robotic Embedded Systems Laboratory (RESL)

*Research Assistant*

**Los Angeles, CA**

*May 2018 - Present*

- Conducted research on applying machine learning techniques to control problems and published academic papers.
- Implemented a simulation environment and a training pipeline that efficiently converted neural network graphs to embedded software that ran on STM32 micro-controllers.
- Skills : Python, C++, C, TensorFlow, OpenAI, ROS, Gazebo, Boost,  $\LaTeX$

### Dynamic Robotics Laboratory

*Intern*

**Corvallis, OR**

*May 2016 - September 2016*

- Participated in the development of the bipedal robot Cassie.
- Implemented a communication protocol to securely and efficiently transfer telemetry data between the robot and the remote control. Customized a user interface on the remote controller to display the robot's status, e.g. robot pose, temperature, battery, etc.
- Skills: C, Python, MAVLINK, Lua

## PROJECTS

### Stock Quote Website and Android App

*September 2017 - December 2017*

- Created a dynamic website that displayed real-time stock quotes in user-defined watch list using Ajax techniques, and an Android App that had similar behaviors.
- Skills: Java, HTML, CSS, JavaScript, MySQL, AngularJS, Bootstrap, jQuery, React, Node.js, AWS, REST APIs

### Autonomous RC

*September 2016 - May 2017*

- Built an RC car platform capable of autonomous driving using cheap hardware and won the best project of the year.
- Skills: C++, Python, ROS, Stage, AMCL, Teb\_local\_planner

### Kaggle Competition

*March 2017 - May 2017*

- Built a machine learning pipeline to tell if two Quora questions were semantically identical and successfully trained a model that beat 80% of the competitors.
- Skills: Python, NumPy, TensorFlow, language modeling, recurrent neural network, part-of-speech tagging

## PUBLICATIONS

Artem Molchanov\*, Tao Chen\*, Wolfgang Hönig, James A. Preiss, Nora Ayanian and Gaurav S. Sukhatme, "*Sim-to-(Multi)-Real: Transfer of Low-Level Robust Control Policies to Multiple Quadrotors*", International Conference on Intelligent Robots and Systems, 2019.

(\* equal contribution)

## AWARDS AND ACHIEVEMENTS

Winner, Capstone project, Oregon State University

2017

College of Engineering Scholarship, Oregon State University

2016 & 2017

Spotlight presenter, Southern California Robotics Symposium

2019

Master's Best Research Award, USC

2019

## Hobbies

Things I like @ Anywhere

Forever

- Programming, Robots, LEGOs, Music, Swimming