

# Tao Chen

San Diego, CA 92123

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🔊 TaoChenOSU

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## EDUCATION

### University of Southern California

Master of Computer Science in Intelligence Robotics, GPA: 3.6

Los Angeles, CA

August 2017 - May 2019

### Oregon State University

Bachelor of Computer Science in Computer Systems, GPA: 3.8

Corvallis, OR

September 2014 - June 2017

## WORK & RESEARCH EXPERIENCE

### Xpeng Motors/Xsense.ai

Software Engineer

San Diego, CA

Dec 2019 - Present

- o Develop and evaluate multi-object tracking sensor fusion algorithms for ADAS on production vehicles equipped with radars and cameras.
- o Developed a 3D real-time visualization tool. Gained adaption and completely replaced Rviz across the company.
- o Skills : C++, Qt, OpenGL, Python, Bash Script, Docker

### Robotic Embedded Systems Laboratory (RESL)

Research Assistant

Los Angeles, CA

May 2018 - Dec 2019

- o Researched on applying machine learning techniques to quadrotor control problems and published papers at academic conferences.
- o Developed simulation environment and training pipelines that automatically convert neural network graphs to efficient embedded software that could run on STM32 micro-controllers.
- o Skills : Python, C++, C, TensorFlow, OpenAI, ROS, Gazebo, Docker, Boost,  $\LaTeX$

### Dynamic Robotics Laboratory

Intern

Corvallis, OR

May 2016 - September 2016

- o Participated in the development of the bipedal robot Cassie that became widely used in the research community.
- o Implemented a communication protocol to reliably 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.
- o Skills: C, C++, Python, MAVLINK, Lua, Bash Script

## PROJECTS

### Autonomous RC

September 2016 - June 2017

- o Led the software development in a team of 3 to build a RC car platform capable of autonomous driving using open source software and cheap hardware (< \$2000). Aimed to reduce the cost of building small self-driving car platforms for hobbyists.
- o Selected to present in front of the engineering school board of trustees and won the best computer science project of the year.
- o Skills: C++, Python, ROS, Stage, AMCL, Teb\_local\_planner, LIDAR, IMU

## 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

Honor Roll, Oregon State University

2015 & 2016 & 2017

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

- o Programming, Robots, LEGOs, Music, Swimming