

Tao Chen

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🔊 TaoChenOSU

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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, Docker, Boost, \LaTeX

Dynamic Robotics Laboratory

Intern

Corvallis, OR

May 2016 - September 2016

- Participated in the development of the bipedal robot Cassie that became largely used in research.
- 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