Tao Chen

Los Angeles, CA 90007

🌐 taochenosu.github.io ✉ taochen@usc.edu 🐙 TaoChenOSU 📱 541-829-8140

EDUCATION

University of Southern California **Los Angeles, CA**
Master of Computer Science in Intelligence Robotics *August 2017 - May 2019*

Oregon State University **Corvallis, OR**
Bachelor of Computer Science in Computer System *September 2014 - June 2017*

WORK & RESEARCH EXPERIENCE

Robotic Embedded Systems Laboratory (RESL) **Los Angeles, CA**
Research Assistant *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 **Corvallis, OR**
Intern *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