

XUXIN CHENG

(+1) 510-423-1592 • chengxuxin99@gmail.com • chengxuxin.github.io

EDUCATION / AWARDS

Carnegie Mellon University, Pittsburg, PA 08/2021 – 08/2023(Expected)

M.S. in Robotics

University of California, Berkeley, Berkeley, CA 07/2019 – 12/2020

Visiting student, EECS & ME; GPA: 3.94/4.0

- Selected Courses (all grad level): CS285 Deep Reinforcement Learning; CS194 Computer Vision; EE206 Introduction to Robotics; EE127 Optimization; ME193 Legged Robots; ME 299 Individual Research

Beijing Institute of Technology, Beijing, China 09/2016 – 07/2020

B.S. in Automation Engineering; GPA: 91.5/100 (Rank 1/167)

- National Scholarship (0.2%); DWIN Scholarship (1%); Outstanding Student Scholarship (5%, 5 times)
- Graduation with honor: Outstanding Graduates of Beijing & BIT

PUBLICATIONS

- **Xuxin Cheng**, Zhongyu Li, Xue Bin Peng, Pieter Abbeel, Sergey Levine, Glen Berseth, Koushil Sreenath. "Learning Precise Foot Placement Skills for Bipedal Robots". In preparation for *IEEE Robotics and Automation Letters (RA-L)*
- Zhongyu Li, **Xuxin Cheng**, Xue Bin Peng, Pieter Abbeel, Sergey Levine, Glen Berseth, Koushil Sreenath. "Reinforcement Learning for Robust Parameterized Locomotion Control of Bipedal Robots". *IEEE International Conference on Robotics and Automation (ICRA)* 2021
- Fei Ye*, **Xuxin Cheng***, Pin Wang, Ching-Yao Chan. "Automated Lane Change Strategy using Proximal Policy Optimization-based Deep Reinforcement Learning". *IEEE Intelligent Vehicles Symposium (IV)* 2020
- Tianyu Shi, Pin Wang, **Xuxin Cheng**, Ching-Yao Chan. "Driving Decision and Control for Automated Lane Change based on Deep Reinforcement Learning". *IEEE International Conference on Intelligent Transportation Systems (ITSC)* 2019

Posters

- Pin Wang, Fei Ye, **Xuxin Cheng**, Ching-Yao Chan. "Lane Change Strategy based on Meta Reinforcement Learning". *Berkeley Artificial Intelligence Research (BAIR) / Berkely Deep Drive (BDD) Workshop* 2019

* denotes equal contribution

EXPERIENCE

Hybrid Robotics Lab (HRL), UC Berkeley 01/2020 - Present

R.A., Advisor: Koushil Sreenath & Sergey Levine Berkeley, CA

- Propose and implement the reinforcement learning-based controller for precise foot placement skills of bipedal robot Cassie, with foot placement information extracted from an on-board RGB camera.
- Propose and implement the approach for training bipedal robot in simulation to perform diverse and robust locomotion skills; Successfully transfer learned policy to the real robot.

Partners for Advanced Transportation Technology (PATH), UC Berkeley 07/2019 - 02/2020

R.A., Advisor: Ching-Yao Chan Berkeley, CA

- Propose and develop the framework for optimizing lane change maneuver in highway environment with deep reinforcement learning. Proposed method performs favorably against baseline approaches.

PKU Omni Smart Sensing Lab (POSS), Peking University 07/2018 - 12/2018

R.A., Advisor: Huijing Zhao Beijing, China

- Process data from RGB and Lidar inputs of autonomous vehicles in field environments. Implement traversable area segmentation using inverse reinforcement learning.

SERVICES

Peer reviewer for *IEEE Intelligent Vehicles Symposium (IV)* 2020

SKILLS

Languages: Python, C++, JavaScript, HTML, Assembly Language

Softwares&Tools: MATLAB, ROS, Tensorflow, Pytorch, MuJoCo, PyBullet, Git, L^AT_EX