FANGCHEN (CATHERINE) LIU

+1 (858) 295-9946 ⋄ fliu@eng.ucsd.edu

Homepage: https://fangchenliu.github.io/

EDUCATION

University of California San Diego   Sep. 2018 − Mar. 2020
M.S. in Computer Science − thesis track
GPA: 3.91/4.0

Peking University, Beijing, China,   Sep. 2014 − Jul. 2018
B.S. in Computer Science with Honor − summa cum laude *(view degree)*
Overall GPA: 3.67/4.0 (20 out of 193)   Major GPA: 3.72/4.0 (18 out of 193)
Overall/Major GPA ranks No.1 in junior year

RESEARCH INTEREST

My research focuses on environment understanding for decision-making, which involves reinforcement learning, computer vision, and embodied agents.

I aim to build machine intelligence that can actively learn from interactions, with the ability of reasoning, planning, and generalization.

PUBLICATIONS

∗ indicates equal contribution

- SAPIEN: a SimulAted Part-based Interactive ENvironment. Fanbo Xiang, Yuzhe Qin, Kaichun Mo, Yikuan Xia, Hao Zhu, **Fangchen Liu**, Minghua Liu, Hanxiao Jiang, Yifu Yuan, Li Yi, He Wang, Angel Chang, Leonidas Guibas, Hao Su. *oral in CVPR*, 2020

- State Alignment-based Imitation Learning. **Fangchen Liu**, Zhan Ling, Tongzhou Mu, Hao Su. *ICLR*, 2020

- Mapping State Space using Landmarks for Universal Goal Reaching. **Fangchen Liu**∗, Zhiao Huang∗, Hao Su. *NeurIPS*, 2019

- Adversarial Defense by Stratified Convolutional Sparse Coding. Bo Sun, Nian-hsuan Tsai, **Fangchen Liu**, Ronald Yu, Hao Su. *CVPR*, 2019

- Effective Master-Slave Communication On a Multi-Agent Deep Reinforcement Learning System. Xiangyu Kong, **Fangchen Liu**∗, Bo Xin∗, Yizhou Wang. *NIPS Hierarchical Reinforcement Learning Workshop*, 2017

- Revisiting the Master-Slave Architecture in Multi-Agent Deep Reinforcement Learning. Xiangyu Kong, **Fangchen Liu**∗, Bo Xin∗, Yizhou Wang. *arXiv:1712.07305*

- BDD100K: A Diverse Driving Dataset for Heterogeneous Multitask Learning. Fisher Yu, Haofeng Chen, Xin Wang, Wenqi Xian, Yingying Chen, **Fangchen Liu**, Mike Liao, Vashisht Madhavan, Trevor Darrell. *oral in CVPR*, 2020

WORKING EXPERIENCE

Intern at Microsoft Research Asia, Visual Computing Group	Dec. 2017 − Mar. 2018
Intern at SenseTime AI, Face Recognition & Detection Group	Sep. 2016 − Mar. 2017

TEACHING EXPERIENCE

TA for Introduction to Convex Optimization, UCSD	Jan. 2020 − Mar. 2020
TA for Introduction to Computer Vision, UCSD	Sep. 2019 − Dec. 2019
Seminar on Advanced Optimization, UCSD	Sep. 2019 − Dec. 2019
Seminar on Convex Optimization, UCSD	Feb. 2019 − May. 2019
Seminar on Spectral Graph Theory, UCSD	Sep. 2018 − Dec. 2018
TA for Algorithm Design and Analysis, Peking University	Feb. 2017 − Jun. 2017

HONORS AND AWARDS

Honored Bachelor of Science in Peking University, EECS Department	Jul. 2018 (30 in 350)
Excellent Graduate Award	Jul. 2018
Guanghua Scholarship	2015 & 2017
TP-Link Scholarship	2016
Merit Student in Academic Study	2016 & 2017
First-prize in Chinese Mathematical Olympiad in Senior	Dec. 2013

SERVICE

Reviewer for CVPR, NeurIPS