

YUDA SONG

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EDUCATION

Carnegie Mellon University

M.S. in Machine Learning

August 2020 - Present

GPA: 4.17/4.00

University of California, San Diego

B.S. in Computer Science, B.S. in Mathematics (Summa Cum Laude)

September 2016 - June 2020

GPA: 3.945/4.00

RESEARCH INTEREST

I am broadly interested in machine learning, learning theory, especially reinforcement learning. I am interested in developing algorithms with theoretical guarantees and also testing their empirical counterparts in practice. My current focus is on model-based RL, imitation learning and exploration in RL.

PREPRINT

Yuda Song, Ye Yuan, Wen Sun, Kris Kitani, “Online No-regret Model-Based Meta RL for Personalized Navigation,” *in submission*.

Ye Yuan, **Yuda Song**, Zhengyi Luo, Wen Sun, Kris Kitani, “Transform2Act: Learning a Transform-and-Control Policy for Efficient Agent Design,” *in submission*. <https://arxiv.org/abs/2110.03659>.

PUBLICATION

Yuda Song, Wen Sun, “PC-MLP: Model-based Reinforcement Learning with Policy Cover Guided Exploration,” in *International Conference on Machine Learning (ICML)*, 2021. <https://arxiv.org/abs/2107.07410>.

Yuda Song, Aditi Mavalankar, Wen Sun, Sicun Gao, “Provably Efficient Model-based Policy Adaptation,” in *International Conference on Machine Learning (ICML)*, 2020. <https://arxiv.org/abs/2006.08051>.

RESEARCH EXPERIENCE

KLab @ CMU, Pittsburgh

Research Assistant

September 2020 - Present

- Worked at Prof. Kris Kitani's lab in Robotics Institute, CMU. Research focused on reinforcement learning, online learning and autonomous driving.

CSE Department & SDSC @ UCSD, San Diego

Research Assistant

September 2017 - June 2020

- Worked at Prof. Sicun Gao's lab in UCSD CSE Department and the San Diego Supercomputer Center. Research focused on reinforcement learning and control.

TEACHING EXPERIENCE

Teaching Assistant

- UCSD CSE291: Topics in Search and Optimization (Winter 2020)
- UCSD CSE154: Deep Learning (Fall 2019)
- UCSD CSE150: Introduction to AI: Search and Reasoning (Winter 2019, Spring 2020)

Tutor

- UCSD CSE30: Computer Organization and Systems Programming (Spring 2019, Winter 2018)
- UCSD CSE11: Introduction to CS & OOP (Fall 2018)

SERVICE

Reviewer

- AAAI (2021), ICML (2021), NeurIPS (2021), ICLR (2022).

SELECTED PROJECTS

CaffeineMated, Frontend Developer

April 2018 - June 2018

- Built a mobile app that allows students to bring coffees for their classmates campus-wide. Developed with React Native.

Alpha Gomoku

January 2018 - April 2018

- Built a Gomoku agent trained with AlphaZero algorithm. The agent finished with the level of humans with decent experiences in Gomoku.

VR Classroom, Backend Developer

November 2016 - June 2017

- Built a Virtual Reality project on Google Daydream and HTC Vive that can simulate a discussion lecture within 20 people, promoting the experience of online learning.

WhereUAt, Full-stack Developer

September 2016 - June 2017

- Built an iOS app that helps people to organize event and keep track of positions when the event is approaching. Demoed the app on the annual CodePath event.