Dingyang Chen

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Education

PhD, Computer Science

May 2021 - Current

University of South Carolina, Columbia, SC, USA

Advisor: Qi Zhang

MEng, Electrical Engineering and Computer Sciences

Aug 2018 - May 2019

University of California, Berkeley, Berkeley, CA, USA

BS, Computer Science

Aug 2014 - May 2018

University of Illinois at Urbana-Champaign, Champaign, IL, USA

Professional Experience

Amazon, Bellevue, WA

Summer 2024

Applied Scientist Intern Mentor: Zhenyu Zhang

• Work on cost of goods prediction.

Siemens, Princeton, NJ

Summer 2022

Research Intern Mentor: Yubo Wang

• Apply reinforcement learning algorithm (Alpha Go) on power system reconfiguration.

Publications

Conference Proceedings

1. Reinforcement Learning with Euclidean Data Augmentation for State-Based Continuous Control.

Jinzhu Luo, Dingyang Chen, Qi Zhang

Neural Information Processing Systems (NeurIPS) 2024.

2. Efficient Sequential Decision Making with Large Language Models.

Dingyang Chen, Qi Zhang, Yinglun Zhu

Empirical Methods in Natural Language Processing (EMNLP) 2024.

 $3. \ E(3)\mbox{-Equivariant Actor-Critic Methods for Cooperative Multi-Agent Reinforcement Learning.}$

Dingyang Chen, Qi Zhang

International Conference on Machine Learning (ICML) 2024.

4. Context-Aware Bayesian Network Actor-Critic Methods for Cooperative Multi-Agent Reinforcement Learning.

Dingyang Chen, Qi Zhang

International Conference on Machine Learning (ICML) 2023.

5. Communication-Efficient Actor-Critic Methods for Homogeneous Markov Games.

Dingyang Chen, Qi Zhang

International Conference on Learning Representations (ICLR) 2022.

Refereed Workshop Proceedings

6. Convergence Rates of Bayesian Network Policy Gradient for Cooperative Multi-Agent Reinforcement Learning.

Dingyang Chen, Zhenyu Zhang, Xiaolong Kuang, Xinyang Shen, Ozalp Ozer, Qi Zhang Workshop on Bayesian Decision-making and Uncertainty at NeurIPS 2024.

7. Convergence and Price of Anarchy Guarantees of the Softmax Policy Gradient in Markov Potential Games.

Dingyang Chen, Qi Zhang, Thinh T. Doan

Decision Awareness in Reinforcement Learning Workshop at ICML 2022.

8. A Meta-Gradient Approach to Learning Cooperative Multi-Agent Communication Topology.

Qi Zhang, Dingyang Chen

Workshop on Meta-Learning at NeurIPS 2021.

Professional Service

Conference Reviewer

AAAI'25, ICML'24, ICLR'24, NeurIPS'23, and NeurIPS'22 Deep RL Workshop

Journal Reviewer

IEEE TNNLS

Honors & Awards

Fung Excellence Scholarship (USD 10000), University of California, Berkeley, 2018

Graduation with honors, University of Illinois at Urbana-Champaign, 2018

Dean's List, University of Illinois at Urbana-Champaign, 2014, 2015, 2017

Edmund J James Scholar, University of Illinois at Urbana-Champaign, 2014

Teaching Experience

Graduate Teaching Assistant - Visualization Tools, University of South Carolina [FA24] Graduate Teaching Assistant - Algorithmic Design I, University of South Carolina [FA23]