

Jiuqi Wang

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EDUCATION

University of Virginia

Ph.D. Computer Science

Advisor: Shangtong Zhang

Aug. 2023 - May. 2028

Charlottesville, Virginia

University of Alberta

MSc. Computing Science (Thesis)

Co-Supervisors: Martin Müller and Jonathan Schaeffer

Sep. 2021 - Jun. 2023

Edmonton, Alberta

McGill University

BSc. Honours Computer Science

Distinction, First-Class Honours

Sep. 2017 - Jun. 2021

Montréal, Québec

RESEARCH INTERESTS

Sequential Decision Making under Uncertainty, Reinforcement Learning (RL), Deep Learning

RESEARCH EXPERIENCE

Graduate Research Assistant

Advised by Prof. Shangtong Zhang

Aug. 2023 - present

Charlottesville, Virginia

- Focus on the theory and application of reinforcement learning for solving sequential decision-making problems.
- Recent projects include almost sure convergence of temporal difference learning algorithms and in-context reinforcement learning. Please see [Publications](#) for more detail.

Master's Thesis

Co-Supervised by Prof. Martin Müller and Jonathan Schaeffer

May 2022 - June 2023

Edmonton, Alberta

- **Title:** [Deep Dive on Checkers Endgame Data](#)
- Developed the raw-data-to-tensor pipeline that reads in byte representations of board positions and turns them into tensors.
- Designed and implemented the deep neural networks in JAX.
- Constructed a flexible and scalable experiment workflow.

Undergraduate Research

Supervised by Prof. Hsiu-chin Lin

May 2020 - Sep. 2020

Montréal, Québec

- **Topic:** *Sim-to-Real Transfer Learning of Time-Invariant Linear Parameter-Varying Dynamical Systems from Gaussian Mixture Models*
- Reviewed relevant literature on dynamical systems and transfer learning.
- Implemented the learning algorithm in NumPy.
- Conducted experiments on benchmark datasets.
- Developed and studied an adaptive re-training procedure that increases the algorithm's robustness under noisy training data.

TEACHING EXPERIENCE

Teaching Assistant

Reinforcement Learning

Sep. 2024 - Dec. 2024

Charlottesville, Virginia

- Hosted office hours to provide academic support and facilitate student learning.
- Announced and graded homeworks.

Teaching Assistant

Search, Knowledge and Simulations

Jan. 2022 - Apr. 2022

Edmonton, Alberta

- Prepared the starter code of the assignments for the students and the scripts for grading the assignments.
- Monitored and graded the final project, where each student group developed a game-playing agent and competed with each other in a tournament.

Teaching Assistant

Intro to the Foundations of Computation I

Sep. 2021 - Dec. 2021

Edmonton, Alberta

- Held labs with other TAs to review and complement the materials covered in lectures.
- Graded student assignments.

Teaching Assistant

Intro to Computer Science

Jan. 2020 - May 2020

Montréal, Québec

- Prepared original weekly quiz questions for the course.
- Held office hours to answer questions from students.

PROFESSIONAL EXPERIENCE

AI-SCORE 2024

University of Maryland

May 2024 - Jun. 2024

College Park, Maryland

- One of the 30 selected Ph.D. students to participate in the inaugural [AI-SCORE](#) summer school where students and scholars from the artificial intelligence and operations research communities join to discuss interdisciplinary research.
- Attended lectures and panel discussions and exchanged ideas with fellow students from both disciplines.
- Travel and lodging costs were fully reimbursed.

Development Intern

PTC Inc.

May 2021 - Jul. 2021

Suzhou, China

- Worked on product internationalization using the i18next framework that translates the originally hard-coded English webpages to the selected language.
- Troubleshooted several front-end issues.

VOLUNTEERING EXPERIENCE

High School Mentor

Charlottesville High School

Sep. 2024 - Dec. 2024

Charlottesville, Virginia

- Matched with one of the teams in the engineering class of CHS.
- Advised the team with their semester-long final engineering project.
- Held weekly meetings with the team to keep track of the progress and assisted troubleshooting.

PUBLICATIONS

* indicates equal contribution; † indicates advisor

1. [Almost Sure Convergence of Linear Temporal Difference Learning with Arbitrary Features](#)
Jiuqi Wang, Shangdong Zhang[†]
arXiv preprint arXiv:2409.12135, 2024.
2. [Transformers Learn Temporal Difference Methods for In-Context Reinforcement Learning](#)
Jiuqi Wang^{*}, Ethan Blaser^{*}, Hadi Daneshmand, Shangdong Zhang[†]
International Conference on Learning Representations (**ICLR**), 2025
Contributed Talk at the Reinforcement Learning Conference (**RLC**) Workshop on Training Agents with Foundation Models, 2024
Spotlight Award at the International Conference on Machine Learning (**ICML**) Workshop on In-Context Learning, 2024
3. [Deep Dive on Checkers Endgame Data](#)
Jiuqi Wang, Martin Müller[†], Jonathan Schaeffer[†]
IEEE Conference on Games (**CoG**), 2023

PEER REVIEW

- International Conference on Artificial Intelligence and Statistics (AISTATS) 2025
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2025
- International Conference on Learning Representations (ICLR) 2025
- Asian Conference on Machine Learning (ACML) 2024
- Reinforcement Learning Conference (RLC) 2024
- International Conference on Artificial Intelligence and Statistics (AISTATS) 2024
- International Conference on Learning Representations (ICLR) 2024

HONORS AND AWARDS

IEEE CIS Travel Grant \$500	<i>Jul. 2023</i> IEEE CIS
GSA Academic Travel Grant \$500	<i>Jul. 2023</i> University of Alberta
Science Undergraduate Research Award (SURA) \$7,000	<i>May 2020</i> McGill University
Dean's Honour List	<i>Aug. 2018</i> McGill University
Faculty of Science Scholarship \$500	<i>Jul. 2018</i> McGill University
Complementary Award \$3,000	<i>Sep. 2017</i> McGill University
Hugh Brock Scholarship \$3,000	<i>Jul. 2017</i> McGill University

SKILLS

- **Technology:** Python(NumPy, Matplotlib, Jupyter Notebook, PyTorch, JAX) (advanced), Java (intermediate), Git (intermediate), Linux (intermediate), L^AT_EX(advanced)
- **Knowledge:** Statistical Machine Learning (advanced), Deep Learning (advanced), (Deep) Reinforcement Learning (advanced), Heuristic Search (advanced), Robotics (intermediate)
- **Language:** English(proficient), Mandarin(native), French(elementary)