Jiuqi Wang

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Education

University of Virginia *Aug. 2023 - present*
Ph.D. Computer Science Charlottesville, Virginia
Advisor: Shangtong Zhang

University of Alberta *Sep. 2021 - Jun. 2023*
MSc. Computing Science (Thesis) Edmonton, Alberta
Co-Supervisors: Martin Müller and Jonathan Schaeffer

McGill University *Sep. 2017 - Jun. 2021*
BSc. Honours Computer Science Montréal, Québec
Distinction, First-Class Honours

Research Interests

Reinforcement Learning, In-Context Learning, LLM-powered Agent Systems

Publications

* indicates equal contribution; † indicates advisor

Peer-Reviewed

1. Towards Provable Emergence of In-Context Reinforcement Learning
   Jiuqi Wang, Rohan Chandra, Shangtong Zhang†
   Poster at **Neural Information Processing Systems (NeurIPS)**, 2025
2. Transformers Learn Temporal Difference Methods for In-Context Reinforcement Learning
   Jiuqi Wang*, Ethan Blaser*, Hadi Daneshmand, Shangtong Zhang†
   Poster at **International Conference on Learning Representations (ICLR)**, 2025
   Contributed Talk at the **RLC Workshop on Training Agents with Foundation Models**, 2024
   Spotlight Award at the **ICML Workshop on In-Context Learning**, 2024
3. Deep Dive on Checkers Endgame Data
   Jiuqi Wang, Martin Müller†, Jonathan Schaeffer†
   Oral presentation at **IEEE Conference on Games (CoG)**, 2023

Technical Report

1. PokeeResearch: Effective Deep Research via Reinforcement Learning from AI Feedback and Robust Reasoning Scaffold
   Yi Wan*, **Jiuqi Wang***, Liam Li, Jinsong Liu, Ruihao Zhu, Zheqing Zhu
   Technical Report, Pokee AI, 2025. arXiv:2510.15862.
   Widely adopted open-source release accompanying the technical report.

Preprint

1. Experience Replay Addresses Loss of Plasticity in Continual Learning
   Jiuqi Wang, Rohan Chandra, Shangtong Zhang†
   arXiv:2503.20018, 2025.
2. A Survey of In-Context Reinforcement Learning
   Amir Moeini, **Jiuqi Wang**, Jacob Beck, Ethan Blaser, Shimon Whiteson, Rohan Chandra, Shangtong Zhang†
   arXiv:2502.07978, 2025.
3. Almost Sure Convergence of Linear Temporal Difference Learning with Arbitrary Features
   Jiuqi Wang, Shangtong Zhang†
   arXiv:2409.12135, 2024.

Research & Professional Experience

Research Scientist Intern *Jun. 2025 – present*
Pokee AI Remote

- Co-led the PokeeResearch-7B open-source project end-to-end.
- Leveraged verl to efficiently RL-fine-tune and experiment with PokeeResearch-7B.
- Developed tool-server infrastructure and tool-calling schema to support web search and content retrieval.
- Built deployment tools (CLI + Gradio) for model accessibility and evaluation automation.
- Achieved state-of-the-art performance among 7B-class models on a range of modern benchmarks; 400+ stars & 250+ forks on GitHub within 48 hours of release.

Graduate Research Assistant *Aug. 2023 - present*
Advised by Prof. Shangtong Zhang Charlottesville, Virginia

- Developed theoretical foundations for In-Context Reinforcement Learning (ICRL) in Transformers, resulting in two accepted conference papers.
- Proved almost-sure convergence of TD learning with arbitrary features; journal paper currently under review.

Master's Thesis – Deep Dive on Checkers Endgame Data *May 2022 - Jun. 2023*
Co-Supervised by Prof. Martin Müller and Jonathan Schaeffer Edmonton, Alberta

- Designed neural network and training pipeline for knowledge compression of checkers endgame data with JAX/Haiku.
- Published as a full paper (oral presentation) at CoG, 2023.

Development Intern *May 2021 – Jul. 2021*
PTC Inc. Suzhou, China

- Improved product internationalization by integrating i18next for multi-language support.

Undergraduate Research *May 2020 - Sep. 2020*
Supervised by Prof. Hsiu-chin Lin Montréal, Québec

- Built and evaluated sim-to-real transfer learning for LPV dynamical systems using Gaussian Mixture Models.
- Developed adaptive retraining procedure to improve robustness in learning with noisy data.

Teaching Assistantships

- *Reinforcement Learning (Fall 2024, University of Virginia)*: hosted office hours and graded assignments.
- *Search, Knowledge and Simulations (Spring 2022, University of Alberta)*: prepared assignment starter code and auto-grading scripts; organized and evaluated the final project (game-playing agent tournament).
- *Intro to the Foundations of Computation I (Fall 2021, University of Alberta)*: held lab sessions to review and complement the course material.
- *Intro to Computer Science (Spring 2020, McGill University)*: prepared original weekly quiz questions.

Volunteering Experience

High School Mentor *Sep. 2024 - Dec. 2024*
Charlottesville High School Charlottesville, Virginia

- Matched with a team in the senior engineering class and advised their final engineering project.
- Held weekly meetings with the team to keep up with the progress and assisted troubleshooting.

Peer Review

NeurIPS (2025), ICML (2024–2025), ICLR (2024–2026), AISTATS (2024-2026), IJCAI (2025), AAMAS (2025–2026), ACML (2024), RLC (2024–2025)

Honors and Awards

Best Reviewer Award — *Apr. 2025*
AISTATS

AI-SCORE Summer School Fellow — *May 2024*
$900 — University of Maryland, College Park

IEEE CIS Travel Grant — *Jul. 2023*
$500 — IEEE CIS

GSA Academic Travel Grant — *Jul. 2023*
$500 — University of Alberta

Science Undergraduate Research Award (SURA) — *May 2020*
$7,000 — McGill University

Dean's Honour List — *Aug. 2018*
McGill University

Merit-Based Undergraduate Scholarships (Condensed) — *Jul. 2017 – Jul. 2018*
$6,500 — McGill University

Skills

- **Technology:** Python (NumPy, PyTorch, JAX, vLLM, Gradio), Java, Git/GitHub, Docker, Linux, Weights & Biases, Huggingface, LaTeX
- **Knowledge:** Statistical Machine Learning, Deep Learning, (Deep) Reinforcement Learning, Heuristic Search, Robotics
- **Language:** English (proficient), Mandarin (native), French (basic)