

# Tyler Kastner

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## Education

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**University of Toronto** PhD. Computer Science September 2022 – May 2026 (Expected)

Researching reinforcement learning and general machine learning under joint supervisors Amir-massoud Farahmand and Murat Erdogdu.

**McGill University** MSc. Computer Science Summer 2021 – August 2022

GPA: 4.00/4.00. Thesis title: State Similarity Metrics in Reinforcement Learning.

**McGill University** BSc. Joint Honours in Math and Computer Science Fall 2018 – Winter 2021

GPA: 3.88 /4.00. Graduated with First Class Honours and Distinction.

## Publications

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Claas Voelcker, [Tyler Kastner](#), Igor Gilitschenski, Amir-massoud Farahmand. “When does Self-Prediction help? Understanding Auxiliary Tasks in Reinforcement Learning”, RLC 2024.

[Tyler Kastner](#), Murat Erdogdu, Amir-massoud Farahmand. “Distributional Model Equivalence for Risk-Sensitive Reinforcement Learning ”, NeurIPS 2023.

Pablo Samuel Castro, [Tyler Kastner](#), Prakash Panangaden, Mark Rowland. “A Kernel Perspective on Behavioural Metrics for Reinforcement Learning”, Transactions on Machine Learning Research 2023.

Pablo Samuel Castro\*, [Tyler Kastner](#)\*, Prakash Panangaden, Mark Rowland. “Mico: Learning improved representations via sampling-based state similarity for Markov decision processes”, NeurIPS 2021.

## Awards

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- Walter C. Sumner Memorial Fellowship 2023, 2024.
- DeepMind Fellowship 2021-2022.
- Quebec Merit Scholarship for Computer Science 2021.
- NSERC USRA Undergraduate Student Research Award, 2020.
- Tomlinson Undergraduate Award for Mentoring 2019.
- Nick Arganski Memorial Scholarship, 2018.

## Experience

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**Quantitative Finance Summer Associate**

May 2024 - August 2024

- Intern on the eFx team. Assembled large datasets of currency prices and applied various machine learning techniques to predict future price movements.

## Academic service

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- Reviewer for ICML '22, NeurIPS '22, AISTATS '22 (top reviewer), NeurIPS '23 (top reviewer), ICML '24 (outstanding reviewer), NeurIPS '24.
- Have reviewed for journals TMLR, TPAMI, and Mathematical Structures in Computer Science.
- Teaching assistant for multiple math/CS courses at McGill and University of Toronto.

## Skills

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Proficient in Python, JAX, PyTorch, Git, NumPy, Pandas, SciPy.