# Tyler Kastner

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## Education

**University of Toronto** PhD. Computer Science September 2022 – Present

Studying reinforcement 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.

## Experience

**Research Assistant (Vector Institute)** September 2022 - Present

- Researching reinforcement learning under Amir-massoud Farahmand and Murat Erdogdu.

**Research Assistant (Mila)** January 2020 - August 2022

- Performed research in reinforcement learning under supervision of Prakash Panangaden. Primarily studied representation learning through state similarity metrics, and introduced novel distances which were both theoretically motivated and applicable in large-scale reinforcement learning.

**Teaching Assistant (McGill University and University of Toronto)** September 2019 - Present

- Worked as teaching assistant for multiple Math and Computer Science courses, at both McGill University and the University of Toronto. Tutored at McGill's Math Help Centre, holding weekly office hours.

## Publications

Pablo Samuel Castro*, **Tyler Kastner***, Prakash Panangaden, and Mark Rowland. (2021) "Mico: Learning improved representations via sampling-based state similarity for Markov decision processes", Neural Information Processing Systems 2021 (NeurIPS) **arXiv link**.

## Awards

- **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** Award for highest achievement in Mathematics, 2018.

## Skills

**Programming Languages**: Experienced in Python, Julia, and OCaml.
**Technologies**: Git, Linux, Docker, Jax, Numpy, Tensorflow, Pytorch.