

Adam Wei

📍 Cambridge, MA ✉️ weiadam@mit.edu 🔗 adamwei.com 🎓 [Google Scholar](#)

Education

Massachusetts Institute of Technology

Sep 2023 – Present

Ph.D. Student in Computer Science – Advisor: [Prof. Russ Tedrake](#)

- My research focuses on two main directions: **1)** understanding and improving how different data sources can be used in robot imitation learning, **2)** algorithmic improvements for generative modeling in robotics with a focus on learning from out-of-distribution or low-quality data.

University of Toronto

Sep 2019 – May 2023

B.Eng. in Electrical Engineering

- **CGPA:** 3.99/4.0

Publications & Preprints

Empirical Analysis of Sim-and-Real Cotraining of Diffusion Policies for Planar Pushing from Pixels

IOS 2025

CoRL Workshop 2025

Adam Wei, Abhinav Agarwal, Boyuan Chen, Rohan Bosworth, Nicholas Pfaff, Russ Tedrake

How Well do Diffusion Policies Learn Kinematic Constraint Manifolds?

Under Review 2025

Lexi Foland, Thomas Cohn, Adam Wei, Nicholas Pfaff, Boyuan Chen, Russ Tedrake

Consensus Complementarity Control for Multi-Contact MPC

IEEE T-RO Journal 2024

Best Paper Award [🔗](#)

Alp Aydinoglu, Adam Wei, Wei-Cheng Huang, Michael Posa

Framework and Software for Real-Time Multi-Contact Model Predictive Control

RSS 2022

Alp Aydinoglu, Adam Wei, Michael Posa

BitAllocation: A Resource Allocation Algorithm For Fixed-Point Quantization

Preprint 2021

Adam Wei, Andreas Moshovos

Talks

Empirical Analysis of Sim-and-Real Cotraining

Hangzhou, China / Seoul, Korea

Slides [🔗](#) IOS 2025 / CoRL Workshop 2025

Oct 2025 / Sep 2025

Learning From Out-of-Distribution Data in Robotics

Cambridge, MA

Slides [🔗](#) Amazon Science Hub Robotics Research Day 2025

Sep 2025

Principles of Sim-and-Real Cotraining for Robot Manipulation

Sunnyvale, CA

Slides [🔗](#) Amazon Consumer Robotics Symposium 2025

Apr 2025

Fellowships & Awards

Best Paper Award, *IEEE RAS TC on Model-based Optimization for Robotics*

2025

Graduate Research Fellowship, *National Science Foundation*

2024

Canada Graduate Scholarships-Doctoral, *NSERC*

2024

NDSEG Honorable Mention, *US Department of Defense*

2023

Gordon R. Selmon Capstone Design Award, *University of Toronto*

2023

ECE Top Student Award, *University of Toronto*

2020, 2021, 2022

First-Year Summer Research Fellowship, *University of Toronto*

2020

Work Experience

Robotics Ph.D. Student

Massachusetts Institute of Technology – Advisor: [Prof. Russ Tedrake](#)

Cambridge, MA
Sep 2023 – Present

- My research focuses on two main directions: **1)** understanding and improving how different data sources can be used in robot imitation learning, **2)** algorithmic improvements for generative modeling in robotics with a focus on learning from out-of-distribution or low-quality data.

Robotics Research Assistant

University of Pennsylvania, GRASP Lab – Advisor: [Prof. Michael Posa](#)

Philadelphia, PA
May – Dec 2022

- Developed and deployed a real-time model predictive control algorithm for multi-contact systems
- Published in the IEEE T-RO journal and received a **Best Paper Award** (see above)

Software Engineer

Tenstorrent – AI Hardware Start-up with [Jim Keller](#)

Toronto, Canada
May – Aug 2021

- Developed infrastructure for our chip's kernels & backend compiler using C++, Python, SQL, and Verilog
- Awarded a bonus for demonstrating leadership skills and taking ownership of my projects

Machine Learning Research Assistant

University of Toronto – Advisor: [Prof. Andreas Moshovos](#)

Toronto, Canada
May 2020 – Dec 2021

- Developed a novel optimization-based quantization algorithm that achieved state-of-the-art compression of ImageNet models in linear-time (as opposed to existing algorithms that required exponential time)

Teaching & Service

Teaching Assistant, University of Toronto

ECE421: Robot Modeling and Control – [Prof. Laca Pavel](#)

Toronto, Canada
Sep – Dec 2022

Graduate School Application Mentor, Massachusetts Institute of Technology
MIT GAAP Program

Cambridge, MA
2023 – 2024

University of Toronto vs University of Waterloo: a Detailed Comparison
[Blog Post](#) [🔗](#)

2023

Student Mentor, University of Toronto
ECE Club Mentorship Program

Toronto, Canada
2022 – 2023