

Tianyue H. Zhang

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Github: [tianyuehz](https://github.com/tianyuehz) · Publication: [Google Scholar](#)

Education

Sept. 2023 - Present	Mila/Université de Montréal <i>Ph.D. Computer Science, DIRO</i> Supervised by Dr. Simon Lacoste-Julien
Sept. 2021 - Sept. 2023	University of British Columbia <i>M.Sc. Computer Science</i> Supervised by Dr. Mark Schmidt
Sept. 2015 - Sept. 2019	University of British Columbia <i>B.Sc. Combined Honours in Computer Science and Mathematics</i> Dean's Honour List; Graduated with Distinction

Publications

Understanding Adam Requires Better Rotation Dependent Assumptions [Paper](#)

NeurIPS Optimization Workshop 2024; In submission to AISTATS 2025

L. Maes*, **T. Zhang***, A. Jolicoeur-Martineau, I. Mitliagkas, D. Scieur, S. Lacoste-Julien, C. Guille-Escuret*

On PI Controllers for Updating Lagrange Multipliers in Constrained Optimization [Paper](#)
ICML 2024)

J. Gallego-Posada, M. Sohrabi, J. Ramirez, **T. Zhang**, S. Lacoste-Julien

Optimistic Thompson Sampling for Episodic Reinforcement Learning [Paper](#)

UAI 2023

B. Hu, **T. Zhang**, N. Hegde, M. Schmidt

Efficient and Adaptive Posterior Sampling Algorithms for Bandits [Paper](#)

Arxiv preprint 2023

B. Hu, Z. Zhang, **T. Zhang**, M. Lecuyer, N. Hegde

From 6235149080811616882909238708 to 29: Vanilla Thompson Sampling Revisited [Paper](#)

NeurIPS Optimization Workshop 2023

B. Hu, **T. Zhang**

Selected Awards

2023	Professor Cho Diversity Scholarship, \$1500
2022	UBC Cloud Innovation Center Fellowship, \$20000
2019	NSERC Undergraduate Student Research Award, \$6000
2018	UBC Science Faculty International Student Scholarship, \$10000
2015	UBC Outstanding International Student Award, \$6000

Thesis

Optimistic Thompson Sampling: Strategic Exploration in Bandits and RL

UBC · Department of Computer Science [Thesis](#)

Supervisory committee: Dr. Mark Schmidt and Dr. Mathias Lecuyer

Selected Service

Nov. 2024	Reviewer, ICLR 2025
July 2024	Reviewer, NeurIPS 2024
June. 2024 - Present	Organization Team, Mtl MLOpt
Sept. 2023 - Present	Organization Team, Women@Mila
Dec. 2023	Student Volunteer, WiML
Dec. 2023	Student Volunteer, NeurIPS 2023
Aug. 2023	Student Volunteer, UAI 2023
Jan. 2022 - Aug.2023	Member, UBC Mathematics of Information, Learning and Data
Sept. 2017 - Apr.2023	Representative, UBC Dance Horizon Club
Apr. 2022	Volunteer, Graduate Student Orientation
Dec. 2021	Student Reviewer, Graduate Recruiting Committee
Sept. 2018	Volunteer, UBC Computer Science Tri-Mentoring Program

Teaching Assistant

Sept. 2023 - Dec. 2023	Mila/Polytechnique Montreal INF8245E - Machine Learning
Sept. 2021 - May 2023	UBC · CPSC 532M/340: Machine Learning and Data Mining
Jan. 2018 - Apr. 2018	UBC · Math 152: Linear Systems
Sept. 2017 - Apr. 2018	UBC · CPSC 121: Models of Computation
July 2017 - Aug. 2017	UBC · Math 102: Integral Calculus

Competitions

Dec. 2018	Putnam Competition, Mathematical Association of America <i>Ranked top 1500 in North America</i>
Sept. 2014	Chinese Physics Olympiad (CPhO) <i>Guangdong Provincial Secondary Prize</i>

Presentations

Nov. 2024	Understanding Adam Requires Better Rotation Dependent Assumptions <i>MTL MLOpt</i>
June. 2024	On PI Controllers for Updating Lagrange Multipliers in Constrained Optimization <i>Tsinghua University, Statistical Artificial Intelligence & Learning Group</i>
Apr. 2023	Deep exploration via randomized value function <i>UBC · Reinforcement Learning Reading Group</i>
Oct. 2022	Language Models are Few Shot Learners (GPT-3) <i>UBC · Machine Learning Reading Group</i>
June 2022	Active Learning and Image Segmentation <i>UBC · Machine Learning Reading Group</i>
Mar. 2022	Oops I Took a Gradient: Scalable Sampling for Discrete Distributions <i>UBC · Machine Learning Reading Group</i>
Dec. 2021	Understanding The Origins of Bias in Word Embeddings <i>UBC · Machine Learning Reading Group</i>
Dec. 2021	Reinforcement Learning and Autonomous Driving <i>UBC · CPSC 340: Machine Learning and Data Mining</i>
Nov. 2021	Probabilistic Topic Modeling <i>UBC · CPSC 503: Computational Linguistics</i>

Work Experience

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|------------------------|---|
| May 2022 - Dec. 2022 | Research Developer
<i>UBC-AWS Cloud Innovation Center</i> <ul style="list-style-type: none">- Advised undergraduate students with machine learning knowledge to build an innovation dashboard for the Office of the Vice-President, Research and Innovation of UBC- Processed NSERC and CIHR data with AWS Glue Studio, developed a web application to display researchers' profiles and contributions to assist grant resource allocation |
| Sept. 2019 - Apr. 2021 | Software Engineer
<i>Magnitude - Simba Technologies</i> <ul style="list-style-type: none">- Developed JDBC driver releases for Amazon Redshift Database using Java and SQL- Designed customer test packages and its website BigSight using React.js and HTML/CSS- Implemented installation package file directory and test automation Python scripts |
| July 2018 - Aug. 2018 | Research Intern
<i>Bank of China International, London</i> <ul style="list-style-type: none">- Trained a US Treasury prediction model using linear regression, analyzed the company's earning calls, and composed financial reports on futures and options predictions |

Language

Mandarin (native), English (fluent), Cantonese (intermediate), French (beginner)