

Mingde "Harry" Zhao



BASICS

Email: mingde.zhao@mail.mcgill.ca

Location: Toronto, Canada

Homepage: pwnerharry.github.io

Languages: English (native), 汉语(母语), Français (avancé)

RESEARCH INTERESTS

Embodied AI, Autonomous Driving, Reasoning, Planning, Computational Decision-Making

EDUCATION

Doctor of Philosophy, Computer Science

2020 - 2025

McGill University / Mila (L'institut québécois d'intelligence artificielle), CGPA: 4.00/4.00

Advisors: Doina Precup & Yoshua Bengio

Ph.D. Thesis: *Brain-Inspired Planning for Better Generalization in Reinforcement Learning*

Master of Science, Computer Science

2018 - 2020

McGill / Mila, CGPA: 4.00/4.00; Advisors: Doina & Xiaowen Chang

M.Sc. Thesis: *META-Learning Eligibility Traces for More Sample Efficient Temporal Difference Learning*

Bachelor of Engineering, Computer Science & Technology

2014 - 2018

Dalian University of Technology, GPA: 89.0%

PAPER HIGHLIGHTS (Check [Google Scholar](#) for complete list)

- *"Rejecting Hallucinated State Targets during Planning"* – M.Z., T. Sylvain, R. Laroché, D. Precup, Y. Bengio @ [ICML 2025](#).
- *"Consciousness-Inspired Spatio-Temporal Abstractions for Better Generalization in Reinforcement Learning"* – M.Z., S. Alver, H. van Seijen, R. Laroché, D. Precup, Y. Bengio @ [ICLR 2024](#).
- *"Training Matters: Unlocking Potentials of Deeper Graph Convolutional Neural Networks"* – S. Luan*, M.Z.*, X.W. Chang & D. Precup @ [Complex Networks 2023](#), ORAL.
- *"Revisiting Heterophily For Graph Neural Networks"* – S. Luan, C. Hua, Q. Lu, J. Zhu, M.Z., S. Zhang, X.W. Chang, D. Precup @ [NeurIPS 2022](#).
- *"Temporal Abstractions-Augmented Temporally Contrastive Learning: An Alternative to the Laplacian in Reinforcement Learning"* – A. Erraqabi, M.C. Machado, M.Z.*, S. Sukhbaatar, A. Lazaric, L. Denoyer, Y. Bengio @ [UAI 2022](#).
- *"A Consciousness-Inspired Planning Agent for Model-Based Reinforcement Learning"* – M.Z.*, Z. Liu*, S. Luan*, S. Zhang*, D. Precup, Y. Bengio @ [NeurIPS 2021](#).
- *"Bi-space Interactive Cooperative Coevolution for Large Scale Blackbox Optimization"* – H. Ge, M.Z., Y. Hou, K. Zhang, L. Sun, G. Tan, Q. Zhang, C.L.P. Chen @ [Applied Soft Computing](#), 2020.
- *"META-Learning State-Based Eligibility Traces for More Sample-Efficient Policy Evaluation"* – M.Z.*, S. Luan*, I. Porada*, X.W. Chang & D. Precup @ [AAMAS 2020](#).
- *"Break the Ceiling: Stronger Multi-Scale Deep Graph Convolutional Networks"* – S. Luan*, M.Z.*, X.W. Chang & D. Precup @ [NeurIPS 2019](#).

* Equal Contributions

- "An Interactive Many Objective Evolutionary Algorithm with Cascade Clustering & Reference Point Incremental Learning" – H. Ge*, M.Z.*, L. Sun, Z. Wang, G. Tan, Q. Zhang & C.L.P. Chen @ *IEEE Transactions on Evolutionary Computation*, 2018.

WORK & VOLUNTEERING

Applied Scientist @ <i>Wayve</i>	2025 - Now
Conference Paper Reviewer @ <i>ICML, NeurIPS, RLC</i>	2022, 2025
Visiting Student @ <i>Brain and Mind Research Institute, uOttawa</i>	2024 - 2025
Research Intern @ <i>RBC Borealis (previously Borealis AI, Montreal)</i>	2024
Student Researcher @ <i>Haiper (Canada)</i>	2021 - 2023
Research Intern @ <i>Microsoft Research</i>	2022 - 2023
Teaching Assistant @ <i>McGill University</i>	2019 - 2021

AWARDS & SCHOLARSHIPS

Ph.D.:

FRQNT Ph.D. Fellowship (*1st-place recipient*, 2020)

Undergraduate:

Academic Excellence Awards (2015 - 2018)

Outstanding Bachelor Thesis (2018)

Outstanding Student Researcher of the Year (2018)