Fengdi Che

PhD Candidate | University of Alberta | (514)578-9225| fengdi@ualberta.ca

Department of Computing Science, University of Alberta | Google Scholar

EDUCATION

University of Alberta, Edmonton, AB, Canada
Doctor of Philosophy, Statistical Machine Learning, GPA 3.92/4.0 2021 - **2026/08**

- Supervisory Committee: Dr. Rupam Mahmood (Co-Supervisor), Dr. Dale Schuurmans (Co-Supervisor), Dr. Csaba Szepesvári

McGill University, Montreal, QC, Canada
Master of Science and Computer Science, CGPA 3.71/4.0 2018 - 2021

- Supervisor: Dr. Doina Precup

McGill University, Montreal, QC, Canada
Bachelor of Science and Honours Applied Mathematics, CGPA 3.95/4.0 2014 - 2018

INTERNSHIPS

Netflix, Los Gatos, CA, US 2025/10 - 2025/12

- Collaborated with the engineering team to build the training infrastructure on top of VeRL and fine-tuned the LLM-based recommendation system to improve content discovery.

Shanghai AI Lab, Shanghai, China 2025/03 - 2025/09

- Designed an end-to-end verifiable code LLM agent that aligns with the users' intention.
- Investigated the possibility of minimal human prior under the scope of auto-evaluation, data-synthesis and reinforcement learning.

PUBLICATIONS

- **VeriCode Team (Equal Contribution First Author, Project Lead)**. Re: Form--Reducing Human Priors in Scalable Formal Software Verification with RL in LLMs: A Preliminary Study on Dafny. U**nder Review**.
- Lingfei Zeng, **Fengdi Che (Equal Contribution)**, Xuhan Huang, Fei Ye, Xu Xu, Binhang Yuan, Jie Fu. VeriEquivBench: An Equivalence Score for Ground-Truth-Free Evaluation of Formally Verifiable Code. **ICLR 2026** (**Acceptance Rate 28%).**
- **Fengdi Che**, Chenjun Xiao, Jincheng Mei, Bo Dai, Ramki Gummadi, Oscar A Ramirez, Christopher K Harris, A. Rupam Mahmood, Dale Schuurmans. Target Networks and Over-parameterization Stabilize Off-policy Bootstrapping with Function Approximation. **ICML 2024 (spotlight, Acceptance Rate 3.5%).**
- **Fengdi Che**, Gautham Vasan, Rupam Mahmood. Correcting Discount-Factor Mismatch in On-Policy Policy Gradient Methods. **ICML 2023 (Acceptance Rate 27.9%).**

SCHOLARSHIPS AND AWARDS

- Verna Tate Graduate Scholarship in Science
- First Class Honours in Applied Mathematics
- Jenne Bell Science Undergraduate Research Award
- Jurate Tanner Scholarship in Science

RESEARCH INTEREST

Reinforcement Learning, Off-Policy Learning, Continual Learning, AI safety,

LLM Reasoning and Generalization, LLM Post-training, Formal Verification.

TALKS

Tutorial Speaker, accepted at AAAI conference, Philadelphia, PA 2025/02

- Organized a diverse team of a postdoc associate and professors.
- Bridged the gap between theoretical and empirical research and identified fundamental challenges in offline reinforcement learning.

Invited Speaker, Google DevFest, Edmonton, AB 2022/11

- Explained frontier reinforcement learning studies to undergraduate students and software developers.

SERVICE

Volunteer Sub-Team Lead, Conference on Learning Theory, Edmonton, AB 2024/06

- Managed logistics for the poster session, including venue coordination and vendor management.

Breakout Session Organizer, Woman in Machine Learning Workshop, Honolulu, HI 2023/07

- Invited participants interested in making reinforcement learning more applicable, including professors and senior researchers from Nvidia, DeepMind, Microsoft and HuggingFace.
- Organized discussions by proposing several open questions.

Reviewer, for CoLLAs, ICLR and NeurIPS

TEACHING EXPERIENCE

CMPUT 499 Independent Study Co-instructor, University of Alberta 2024/09 - 2024/12

- Designed graduate-level course materials and guided an independent study student's research.

Master Student's Mentor, University of Alberta 2022/10 - 2023/04

- Provided the fundamental idea and supported the student with several contributions and suggestions.
- Guided the student to finish and publish the project, which was then used for his master's thesis.

Teaching Assistant, University of Alberta and McGill University

- Consistently recognized in student feedback for providing clear, helpful, and friendly support.

COMPUTER SKILLS

Language: Python, Matlab, Java.

Framework: veRL, SGLang, vLLM, TRL, PyTorch, Tensorflow, Ray.