LEO FENG

leofeng-ca.github.io

EDUCATION

Mila / Université de Montréal   Montreal, Canada
Ph.D. in Computer Science (Supervised by Prof. Yoshua Bengio)   *Sep 2020 - Nov 2025*

· Fast Track from M.Sc. program (Sep 2020 - Aug 2021)

University of Oxford   Oxford, UK
First Class Honours, B.A. in Computer Science

· Thesis supervised by Prof. Shimon Whiteson and Luisa Zintgraf

MACHINE LEARNING RESEARCH EXPERIENCE

RBC Borealis   Vancouver, Canada
Machine Learning Researcher   *2025 - Present*

RBC Borealis (Formerly Borealis AI)   Vancouver, Canada
Research Intern   *Jan 2022 - Dec 2025*

· Supervised by: Mohamed O. Ahmed, Frederick Tung, Hossein Hajimirsadeghi, and formerly Amir Abdi.
· Resulted in 4 published first-author papers: 2x ICLR 2023, 1x ICLR 2024, 1x ICML 2024
· Worked on (1) selective prediction (ICLR 2023) and (2) scalable attention-based modules for set-structured data (ICLR 2023 and ICML 2024) and sequence data (ICLR 2024 and arXiv preprint).

University of Oxford   Oxford, UK
Research Intern   *Jul 2019 - Oct 2019*

· Supervised by: Prof. Shimon Whiteson and Luisa Zintgraf
· Worked on extending meta-learning methods via a learned loss function (NeurIPS Workshop 2019)

Brave Software   London, UK
Research Intern   *Jun 2018 - Sep 2018*

· Supervised by Panagiotis Tigas
· Worked on a recommender system for delivering personalized ads and click-through rate predictions

SELECTED PUBLICATIONS

[ICML 2024] <u>L. Feng</u>, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Memory Efficient Neural Processes via Constant Memory Attention Block.   *ICML*, 2024.

[ICLR 2024] <u>L. Feng</u>, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Tree Cross Attention.   *ICLR*, 2024.

[ICLR 2023] <u>L. Feng</u>, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Latent Bottlenecked Attentive Neural Processes.   *ICLR*, 2023.

[ICLR 2023] <u>L. Feng</u>, M. Ahmed, H. Hajimirsadeghi, and A. Abdi. Towards Better Selective Classification.   *ICLR*, 2023.

[ICLR 2022] T. Deleu, D. Kanaa, <u>L. Feng</u>, G. Kerg, Y. Bengio, G. Lajoie, and P. Bacon. Continuous-Time Meta-Learning with Forward Mode Differentiation.   *ICLR*, **Spotlight Presentation**, 2022.

[ICML 2021] L. Zintgraf, **L. Feng**, C. Lu, M. Igl, K. Hartikainen, K. Hofmann, and S. Whiteson. Exploration in Approximate Hyper-State Space for Meta Reinforcement Learning. *ICML*, 2021.

[JMLR 2021] L. Zintgraf, S. Schulze, C. Lu, **L. Feng**, M. Igl, K. Shiarlis, Y. Gal, K. Hofmann, and S. Whiteson. VariBAD: Variational Bayes-Adaptive Deep RL via Meta-Learning. *Journal of Machine Learning Research (JMLR)*, 2021.

SELECTED PREPRINTS

[Preprint] **L. Feng**, F. Tung, M. Ahmed, Y. Bengio, and H. Hajimirsadeghi. Were RNNs All we Needed?. *arXiv*, 2024.

[Preprint] **L. Feng**, H. Hajimirsadeghi, F. Tung, M. Ahmed, Y. Bengio, and G. Mori. Attention as an RNN. *arXiv*, 2024.

[Preprint] **L. Feng**, P. Nouri, A. Muni, Y. Bengio, and P. Bacon. Designing Biological Sequences via Meta-Reinforcement Learning and Bayesian Optimization. *arXiv*, 2022.

PATENTS AND APPLICATIONS

US18/316,105 and **CA3199276A** - Selective classification with alternate selection mechanism

SELECTED AWARDS/ACHIEVEMENTS

Outstanding Reviewer, ICML (Top 10%)	2022
Scholarship ($100,000), FRQNT Doctoral (B2X) Scholarship	2022 - 2026
Scholarship ($17,500), Canada Graduate Scholarship (CGS-M) Scholarship	2021
Scholarship ($7000), UdeM Fast-Track to PhD Scholarship	2021
Scholarship ($3500), UdeM Excellence Scholarship (Bourse d'Excellence)	2021
Fellowship ($12,500), Molecule Discovery Fellowship	2020
Scholarship ($6500), UdeM FAS AI Scholarship	2020
Scholarship ($3500), UdeM Excellence Scholarship (Bourse d'Excellence)	2020
Bronze Medal, NWERC ACM ICPC, *Netherlands*	2018
Bronze Medal, NWERC ACM ICPC, *UK*	2017
Bronze Medal, International Olympiad of Informatics (IOI), *Iran*	2017
Gold Medal, Canadian Computing Olympiad, *Canada*	2017
1st Place (Out of 1925 students), Canadian Computing Competition, *Canada*	2017
Invitee, 36th International Mathematics Tournament of Towns, *Russia*	2015
Invitee, 35th International Mathematics Tournament of Towns, *Russia*	2014

Various Olympiads, Asian Pacific Math Olympiad (2015, 2017), USA Math Olympiad (2016), Canadian Math Olympiad (2015-2017), USA Computing Olympiad (Highest Division: Platinum) (2015-2017), Canadian Computing Olympiad (2015: Silver Medal, 2016: Bronze Medal)

TEACHING

Teaching Assistant, "**Representation Learning**" and "**Fundamentals of Machine Learning**" Courses, Université de Montréal, Canada, Fall 2021

Teaching Assistant, "**IVADO/Mila Deep Learning School**", Mila, Canada, Summer 2021

Teaching Assistant, "**Design and Analysis of Algorithms**" and "**Concurrent Programming**" Courses, University of Oxford, UK, Hilary Term 2020

REVIEWER

NeurIPS, ICML, ICLR, AAAI (Social Impact Track)