

LEO FENG

leofeng-ca.github.io \diamond leo.feng@mila.quebec

EDUCATION

Mila / Université de Montréal

Ph.D. in Computer Science

Montreal, Canada

Sep 2020 - Aug 2024

- Fast Track from M.Sc. program (Sep 2020 - Aug 2021)
- Research Supervisor: Prof. Yoshua Bengio

University of Oxford

First Class Honours, Bachelor of Arts in Computer Science

Oxford, UK

Oct 2017 - Jun 2020

- Research Supervisor: Prof. Shimon Whiteson
- Represented University of Oxford in ACM International Collegiate Programming Competition (ICPC)

RESEARCH/WORK EXPERIENCE

Borealis AI (Royal Bank of Canada)

Research Intern

Vancouver, Canada

Jan 2022 - Present

- Supervised by: Dr. Mohamed O. Ahmed, Dr. Frederick Tung, and Dr. Hossein Hajimirsadeghi
- Previously supervised by: Dr. Amir Abdi
- Published 4 papers: 2x ICLR 2023, 1x ICLR 2024, 1x ICML 2024
- 1 paper under submission at NeurIPS 2024

Mila

Graduate Researcher

Montreal, Canada

Sep 2020 - Present

- Supervised by: Prof. Yoshua Bengio

University of Oxford

Research Intern

Oxford, UK

Jul 2019 - Oct 2019

- Supervised by: Prof. Shimon Whiteson and Dr. Luisa Zintgraf

Kyoto University

Research Intern

Kyoto, Japan

Dec 2018 - Jan 2019

- Supervised by: Prof. Atsuko Sehara-Fujisawa
- Funded by JAXA (Japan Aerospace Exploration Agency)

Brave Software

Research Intern

London, UK

Jun 2018 - Sep 2018

- Supervised by: Dr. Panagiotis Tigas

PREPRINTS

[Preprint] **L. Feng**, H. Hajimirsadeghi, F. Tung, M. Ahmed, Y. Bengio, and G. Mori. Attention as an RNN. *Under Submission at Neural Information Processing Systems (NeurIPS)*, 2024.

JOURNAL PUBLICATIONS

[JMLR] 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.

CONFERENCE PUBLICATIONS

[ICML 2024] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Memory Efficient Neural Processes via Constant Memory Attention Block. *International Conference on Machine Learning (ICML)*, 2024.

[ICLR 2024] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Tree Cross Attention. *International Conference on Learning Representations (ICLR)*, 2024.

[ICLR 2023] **L. Feng**, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Latent Bottlenecked Attentive Neural Processes. *International Conference on Learning Representations (ICLR)*, 2023.

[ICLR 2023] **L. Feng**, M. Ahmed, H. Hajimirsadeghi, and A. Abdi. Towards Better Selective Classification. *International Conference on Learning Representations (ICLR)*, 2023.

[ICLR 2022] T. Deleu, D. Kanaa, **L. Feng**, G. Kerg, Y. Bengio, G. Lajoie, and P. Bacon. Continuous-Time Meta-Learning with Forward Mode Differentiation. *International Conference on Learning Representations (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. *International Conference on Machine Learning (ICML)*, 2021.

WORKSHOP PUBLICATIONS

[ICML Workshop 2023] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Constant Memory Attention Block. *ICML Workshop on Efficient Systems for Foundation Models*, 2023.

[NeurIPS Workshop 2022] **L. Feng**, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Efficient Queries Transformer Neural Processes. *NeurIPS Workshop on Meta-Learning*, 2022.

[NeurIPS Workshop 2022] **L. Feng**, P. Nouri, A. Muni, Y. Bengio, and P. Bacon. Designing Biological Sequences via Meta-Reinforcement Learning and Bayesian Optimization. *NeurIPS Workshop on Machine Learning in Structural Biology*, 2022.

[ICLR Workshop 2020] L. Zintgraf, **L. Feng**, M. Igl, K. Hartikainen, K. Hofmann, and S. Whiteson. Exploration in approximate hyper-state space. *ICLR Workshop on Beyond “Tabula Rasa” in Reinforcement Learning*, 2020.

[NeurIPS Workshop 2019] **L. Feng**, L. Zintgraf, B. Peng, and S. Whiteson. Viable: fast adaptation via backpropagating learned loss. *NeurIPS Workshop on Meta-Learning*, 2019.

TEACHING EXPERIENCE

Teaching Assistant, (Graduate course) IFT6135: Representation Learning, Université de Montréal, Canada, Fall 2021

Teaching Assistant, (Graduate course) IFT6390: Fundamentals of Machine Learning, Université de Montréal, Canada, Fall 2021

Teaching Assistant, (Undergraduate course) IFT3395: Fondements de l’Apprentissage Machine, Université de Montréal, Canada, Fall 2021

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

Teaching Assistant, (Undergraduate course) Design and Analysis of Algorithms, University of Oxford, UK, Hilary Term 2020

Teaching Assistant, (Undergraduate course) Concurrent Programming, University of Oxford, UK, Hilary Term 2020

REVIEWER

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

SELECTED AWARDS/ACHIEVEMENTS

Recipient , ICML Outstanding Reviewer (Top 10%), Session Chair Invitee	2022
Recipient , FRQNT Doctoral (B2X) Scholarship (Total: \$100,000)	2022 - 2026
Recipient , Canada Graduate Scholarship (CGS-M) Scholarship (\$17,500)	2021
Recipient , UdeM Fast-Track to PhD Scholarship (\$7000)	2021
2x Recipient , UdeM Excellence Scholarship (Bourse d'Excellence) (Total: \$7000)	2020, 2021
Recipient , Molecule Discovery Fellowship (\$12,500)	2020
Recipient , UdeM FAS AI Scholarship (\$6500)	2020
2x Bronze Medal , North Western European Regionals ACM ICPC, <i>UK, Netherlands</i>	2017, 2018
Bronze Medal , 29th International Olympiad of Informatics (IOI), <i>Iran</i>	2017
Gold Medal , Canadian Computing Olympiad, <i>Canada</i>	2017
1st Place (Out of 1925 students), Canadian Computing Olympiad – Qualifying Round, <i>Canada</i>	2017
Summer Conference Invitee , 36th International Mathematics Tournament of Towns, <i>Russia</i> (Topic: Enclosing walks and image segmentation algorithms)	2015
Summer Conference Invitee , 35th International Mathematics Tournament of Towns, <i>Russia</i> (Declined)	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)	