

LEO FENG

lfeng99.github.io \diamond leo.feng@mila.quebec

EDUCATION

Université de Montréal (Mila)

PhD in Computer Science

Montreal, Canada

Sep 2020 - Current

- 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)
- Thesis Topic: Extending meta-learning methods for supervised learning
- **Relevant Courses:** Machine Learning

RESEARCH/WORK EXPERIENCE

Borealis AI

Research Intern

Vancouver, Canada

Jan. 2022 - Present

- Working with Dr. Mohamed O. Ahmed, Dr. Frederick Tung, and Dr. Hossein Hajimirsadeghi
- Previously worked with Dr. Amir Abdi

University of Oxford

Research Intern with Prof. Shimon Whiteson

Oxford, UK

Jul 2019 - Oct. 2019

Kyoto University

Research Intern with Prof. Atsuko Sehara-Fujisawa

Kyoto, Japan

Dec 2018 - Jan 2019

- Funded by JAXA (Japan Aerospace Exploration Agency)

Brave Software

Research Intern

London, UK

Jun 2018 - Sept 2018

PREPRINTS

- [1] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Constant Memory Attentive Neural Processes. *Under Submission at Neural Information Processing Systems (NeurIPS)*, 2023.
- [2] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Constant Memory Attention Block. *Under Submission at Efficient Systems for Foundation Models Workshop at the International Conference on Machine Learning (ICML)*, 2023.

JOURNAL PUBLICATIONS (REFEREED)

- [1] 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 (REFEREED)

- [1] **L. Feng**, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Latent Bottlenecked Attentive Neural Processes. *International Conference on Learning Representations (ICLR)*, 2023.
- [2] **L. Feng**, M. Ahmed, H. Hajimirsadeghi, and A. Abdi. Towards Better Selective Classification. *International Conference on Learning Representations (ICLR)*, 2023.
- [3] 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.
- [4] 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 (REFEREED)

- [1] **L. Feng**, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Efficient Queries Transformer Neural Processes. *NeurIPS Workshop on Meta-Learning*, 2022.
- [2] **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.
- [3] 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.
- [4] **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

2022 NeurIPS, ICML (Outstanding Reviewer (Top 10%), Session Chair Invitee), ICLR (Mentee), AAAI (Social Impact Track)

SELECTED AWARDS/ACHIEVEMENTS

Recipient, FRQNT Doctoral (B2X) Scholarship (Total: \$84000)

2022 - 2026

Recipient , Canada Graduate Scholarship (CGS-M) Scholarship (\$17500)	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 (\$12500)	2020
Recipient , UdeM FAS AI Scholarship (\$6500)	2020
Invitee , Deep Learning + Reinforcement Learning Summer School (Acc. Rate: 25 %), <i>Canada</i>	2020
Travel Grant , NeurIPS Workshop on Meta-Learning (Acceptance Rate: 27%)	2019
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
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
International Olympiad , Asian Pacific Math Olympiad	2015, 2017
National Olympiad , 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)	