

LEO FENG

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

EDUCATION

Mila / Université de Montréal
Ph.D. in Computer Science

Montreal, Canada
Sep 2021 - Current

- Fast Track from M.Sc. program
- 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

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 Sekhara-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, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Memory Efficient Neural Processes via Constant Memory Attention Block. *Under Submission at International Conference on Machine Learning (ICML), 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

- [**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

SELECTED AWARDS/ACHIEVEMENTS

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| Recipient , ICML Outstanding Reviewer (Top 10%), Session Chair Invitee | 2022 |
| Recipient , FRQNT Doctoral (B2X) Scholarship (Total: \$96000) | 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 |
| 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) | |