LEO FENG

lfeng99.github.io ◇ leo.feng@mila.quebec

EDUCATION

Université de Montréal (Mila) — Montreal, Canada
Ph.D. in Computer Science — *Sept 2021 - Current*

- Fast Track from M.Sc. program
- Research Supervisor: Prof. Yoshua Bengio

University of Oxford — Oxford, UK
First Class Honours, Bachelor of Arts in Computer Science — *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 — Vancouver, Canada
Research Intern — *Jan. 2022 - Present*

- Supervised by: Dr. Mohamed O. Ahmed, Dr. Frederick Tung, and Dr. Hossein Hajimirsadeghi
- Previously supervised by: Dr. Amir Abdi

Mila — Montreal, Canada
Graduate Researcher — *Sept 2020 - Present*

- Supervised by: Prof. Yoshua Bengio

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

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

Kyoto University — Kyoto, Japan
Research Intern — *Dec 2018 - Jan 2019*

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

Brave Software — London, UK
Research Intern — *Jun 2018 - Sept 2018*

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 Learning Representations (ICLR)*, 2024.

[Preprint] **L. Feng**, F. Tung, H. Hajimirsadeghi, Y. Bengio, and M. Ahmed. Tree Cross Attention. *Under Submission at International Conference on Learning Representations (ICLR)*, 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 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: $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 %), *Canada* 2020

Travel Grant, NeurIPS Workshop on Meta-Learning (Acceptance Rate: 27%) 2019

2x Bronze Medal, North Western European Regionals ACM ICPC, *UK*, *Netherlands* 2017, 2018

Bronze Medal, 29th International Olympiad of Informatics (IOI), *Iran* 2017

Gold Medal, Canadian Computing Olympiad, *Canada* 2017

Summer Conference Invitee, 36th International Mathematics Tournament of Towns, *Russia* 2015
(Topic: Enclosing walks and image segmentation algorithms)

Summer Conference Invitee, 35th International Mathematics Tournament of Towns, *Russia* 2014
(Declined)

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)