

# LEO FENG

leofeng-ca.github.io

## EDUCATION

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**Mila / Université de Montréal**

*Ph.D. in Computer Science (Supervised by Prof. Yoshua Bengio)*

Montreal, Canada

*Sep 2020 - Nov 2025*

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

**University of Oxford**

*First Class Honours, B.A. in Computer Science*

Oxford, UK

- Thesis supervised by Prof. Shimon Whiteson and Luisa Zintgraf

## MACHINE LEARNING RESEARCH EXPERIENCE

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**RBC Borealis**

*Research Scientist*

Vancouver, Canada

*2025 - Present*

**RBC Borealis (Formerly Borealis AI)**

*Research Intern*

Vancouver, Canada

*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**

*Research Intern*

Oxford, UK

*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**

*Research Intern*

London, UK

*Jun 2018 - Sep 2018*

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

## SELECTED PUBLICATIONS

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

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

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

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

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[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

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

## SELECTED AWARDS/ACHIEVEMENTS

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

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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**

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