Ye Yuan

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EDUCATION

McGill University & Mila – Quebec AI Institute

Montreal, Quebec, Canada

Doctor of Philosophy in Computer Science supervised by Xue (Steve) Liu | CGPA: 3.87/4.00

January 2023 - Present

Awards: BMO Responsible AI Senior Scholar | BMO Responsible AI Fellowship | NeurIPS 2023 Scholar Award | Faculty of Science Graduate Scholarship | Graduate Excellence Awards

Services: Reviewer of ICML 2025, ICLR 2025, AISTATS 2025, NeurIPS 2024 | AAAI 2025 Undergraduate Consortium, AAAI 2025 KnowFM, NeurIPS 2024 SafeGenAi, ICML 2024 FM-Wild | ACM Transactions on Information Systems.

Tutorships: Teaching Assistants (Comp 202, Comp250) for four semesters; Mentor and Judge for McGill McHacks 9, 10, 11.

McGill University

Montreal, Quebec, Canada

Bachelor of Science in **Honours Computer Science** | CGPA: 3.95/4.00

September 2019 - December 2022

Awards: First Class Honours | Tomlinson Undergraduate Award | Faculty of Science Scholarship | Dean's Honour List

PUBLICATIONS/PREPRINTS

Importance-Aware Co-Teaching for Offline Model-Based Optimization

NeurIPS 2023

Authors: Y. Yuan*, C. Chen*, Z. Liu, W. Neiswanger, X. Liu

Learning to Extract Structured Entities Using Language Models

EMNLP 2024 Main

Authors: Y. Yuan*, H. Wu*, L. Mikaelyan, A. Meulemans, X. Liu, J. Hensman, B. Mitra

- Selected as an oral presentation, 168 out of 2271 accepted papers (7%)

ParetoFlow: Guided Flows in Multi-Objective Optimization

ICLR 2025

Authors: Y. Yuan*, C. Chen*, C. Pal, X. Liu

Large Language Model (LLM) for Telecommunications: A Comprehensive Survey

IEEE COMST 2024

Authors: H. Zhou, C. Hu, Y. Yuan, Y. Cui, Y. Jin, C. Chen, H. Wu, D. Yuan, L. Jiang, D. Wu, X. Liu, C. Zhang, X. Wang, J. Liu

Generative AI as a Service in 6G Edge-Cloud

IEEE WCL 2024

Authors: H. Zhou, C. Hu, D. Yuan, Y. Yuan, D. Wu, X. Liu, Z. Han, C. Zhang

LLMs for Wireless Networks: An Overview from the Prompt Engineering Perspective

IEEE WCM 2024

Authors: H. Zhou, C. Hu, D. Yuan, Y. Yuan, D. Wu, X. Chen, H. Tabassum, X. Liu

Design Editing for Offline Model-based Optimization

Authors: Y. Yuan*, Y. Zhang*, C. Chen, H. Wu, Z. Li, J. Li, J.J. Clark, X. Liu

Preprint

Large Language Model (LLM)-enabled In-context Learning for Wireless Network Optimization

Preprint

Authors: H. Zhou, C. Hu, D. Yuan, Y. Yuan, D. Wu, X. Liu, C. Zhang

Retrieval-Augmented Generation for Natural Language Processing: A Survey

Preprint

Authors: S. Wu, Y. Xiong, Y. Cui, H. Wu, C. Chen, Y. Yuan, L. Huang, X. Liu, T.-W. Kuo, N. Guan, C.J. Xue

WORK EXPERIENCES

Microsoft Research

March 2023 - Present

Research Assistant for Project Alexandria (Supported by MSR-Mila Research Grant)

Montreal, Quebec, Canada

- Introduced and formalized the task of structured entity extraction within the realm of strict information extraction.
- Proposed an evaluation metric AESOP with numerous variants tailored for assessing structured entity extraction.
- Crafted a new multi-stage decoding strategy for structured entity extraction, improving the effectiveness and efficiency.
- Explored the properties of generative models and discriminative models for entity linking tasks.

Noah's Ark Lab Canada

April 2023 - Present

Associate Researcher Intern at Reasoning-Decision-Making Team and NLP Team

Montreal, Quebec, Canada

- Recipient of Outstanding Contribution Award in R&D Peripheral Fields | Overseas Business Contribution Award | Canada Research Institute President's Spot Award
- Adapted the soft prompting to distribution shift problems and empowered a single model for multiple scenarios.
- Explored model compression techniques and crafted LoRA-pruning and Mixture of Depth model to save calculations.
- Took strategy insights into cutting-edge LLM methods and core techniques from leading unicorn startups.

Mila – Quebec AI Institute

May 2024 – December 2024

Montreal, Quebec, Canada

- Mentor for Professional MSc Student's Internship
 - Supervised a professional Master of Science student for their industrial internship's project at Deep River.
 - Provided guidance and suggestions for entity-linking, fine-tuning, knowledge distillation, and RAG for LLMs.