

Bang Liu

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Introduction

Bang Liu is an Assistant Professor in the Département d'informatique et de recherche opérationnelle (DIRO), Université de Montréal. He is a member of the RALI laboratory (Recherche appliquée en linguistique informatique – Applied research in computational linguistics) of DIRO, a member of Mila – Quebec AI Institute, and a Canada CIFAR AI (CCAI) Chair. His research interests primarily lie in the areas of natural language processing (NLP), data mining, graph machine learning, deep learning, multimodal and embodied learning, and AI+X. [This CV was updated in December 2022.]

Education

- **Doctor of Philosophy (Ph.D.)** **01/2016 – 01/2020**
Dept. of Electrical and Computer Engineering, University of Alberta *Edmonton, Canada*
 - **Master of Science (M.Sc.)** **09/2013 – 09/2015**
Dept. of Electrical and Computer Engineering, University of Alberta *Edmonton, Canada*
 - **Bachelor of Engineering (B.Eng.)** **09/2009 – 06/2013**
Dept. of Electronic Information Engineering, University of Science and Technology of China *Hefei, China*
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Appointments

- **Tenure-Track Assistant Professor** **Starting Fall 2020**
Département d'informatique et de recherche opérationnelle, Université de Montréal *Montreal, Canada*
 - **Associate Member of Quebec Artificial Intelligence Institute (MILA)** **Starting Fall 2020**
Mila - Quebec AI Institute *Montreal, Canada*
 - **Research Intern** **Summer 2017/2018/2019**
Tencent *Shenzhen, China*
 - **Google Summer of Code Intern** **Summer 2016**
MLpack *mlpack.org*
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Honors and Awards

- Canada CIFAR AI Chair (500,000 CAD) [Announcement] 09/2021 – 08/2026
 - NSERC Discovery Launch Supplements Award to Early Career Researchers (12,500 CAD) 04/2021 – 03/2022
 - Governor General's Gold Medal nomination 05/2020
 - George Walker PhD Award in Electrical Engineering 05/2020
 - Alberta Innovates - Graduate Student Scholarship, (63,000 CAD) 09/2017 – 09/2019
 - J Gordin Kaplan Graduate Student Award, (1,500 CAD) 04/2019
 - University of Alberta Doctoral Recruitment Scholarship, (15,000 CAD) 01/2016 – 01/2017
 - Outstanding Student Scholarship in USTC 10/2012
 - Meritorious Winner in Mathematical Contest in Modeling 03/2012
 - Outstanding Student Scholarship in USTC 10/2010
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Conference Publications

*, [✉], -, and + indicate equal contributions, corresponding author, trainees supervised, and research interns.

- [C38] Kelong Mao, Hongjin Qian, Fengran Mo, Zhicheng Dou, **Bang Liu**, Xiaohua Cheng, Zhao Cao, "Learning De-noised and Interpretable Session Representation for Conversational Search", accepted by The Web Conference 2023.
- [C37] Zhihao Ye, Wangjie Jiang, **Bang Liu**, Ruihui Zhao, Jianguang Zheng, Mengyao Li, Zhiyong Li, Yujiu Yang, Yefeng Zheng, "Iterative Cross Alignment Prototypical Network for Incremental Few-Shot Relation Classification", accepted by Findings of EACL 2023.
- [C36] Sifan Wu⁻, Ruihui Zhao, Yefeng Zheng, Jian Pei, **Bang Liu**[✉], "Identify Event Causality with Knowledge and Analogy", accepted by AAAI 2023.
- [C35] Yuyan Chen, Zhixu Li[✉], Jiaqing Liang, Yanghua Xiao[✉], **Bang Liu**, Yunwen Chen, "Can Pre-trained Language Models Understand Chinese Humor?", accepted by WSDM 2023.
- [C34] Yi Cheng*, Wenge Liu*, Wenjie Li[✉], Jiashuo WANG, Ruihui Zhao, **Bang Liu**, Xiaodan Liang and Yefeng Zheng, "Improving Multi-turn Emotional Support Dialogue Generation with Lookahead Strategy Planning", accepted by EMNLP 2022.
- [C33] Xiaoqiang Wang*, **Bang Liu***, Siliang Tang[✉], Lingfei Wu[✉], "QRelScore: Better Evaluating Generated Questions with Deeper Understanding of Context-aware Relevance", accepted by EMNLP 2022.
- [C32] Wangjie Jiang, Zhihao Ye, Zijing Ou, Ruihui Zhao, Jianguang Zheng, Yi Liu, Siheng Li, **Bang Liu**, Yujiu Yang, Yefeng Zheng, "MCSCSet: A Specialist-annotated Dataset for Medical-domain Chinese Spelling Correction", accepted by CIKM 2022 short paper.
- [C31] Jiuding Yang*, Weidong Guo*, **Bang Liu***, Di Niu, Chaoyue Wang, Jingwen Luo, Zhen Wen, Yu Xu, "TAG: Toward Accurate Social Media Content Tagging with a Concept Graph", accepted by KDD 2022.
- [C30] Jing Ren*, Tianyang Cao*, Yifan Yang, Yunyan Zhang, Xi Chen, Tian Feng, Baobao Chang[✉], Zhifang Sui[✉], Ruihui Zhao, Yefeng Zheng, **Bang Liu**[✉], "CLINER: Clinical Interrogation Named Entity Recognition", In *International Conference on Knowledge Science, Engineering and Management* (pp. 212-224). Springer, Cham, 2022. (KSEM 2022)
- [C29] Jiayuan Ding*, Tong Xiang*, Zijing Ou*, Wangyang Zuo, Ruihui Zhao, Chenhua Lin, Yefeng Zheng, **Bang Liu**[✉], "Tell Me How to Survey: Literature Review Made Simple with Automatic Reading Path Generation", accepted by ICDE 2022.
- [C28] Sijie Cheng, Zhouhong Gu, **Bang Liu**, Rui Xie, Wei Wu, Yanghua Xiao[✉], "Learning What You Need from What You Did: Product Taxonomy Expansion with User Behaviors", accepted by ICDE 2022.
- [C27] Yang Ding, Jing Yu[✉], **Bang Liu**, Yue Hu, Mingxin Cui, Qi Wu, "MuKEA: Multimodal Knowledge Extraction and Accumulation for Knowledge-based Visual Question Answering", In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, pp. 5089-5098. 2022. (CVPR 2022)
- [C26] Xiaoqiang Wang*, **Bang Liu***, Fangli Xu, Bo Long, Siliang Tang[✉], Lingfei Wu[✉], "Feeding What You Need by Understanding What you Learned", In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pp. 5858-5874. 2022. (ACL 2022)
- [C25] Junyang Huang, Xuanta Lu, Jiaqing Liang, Qiaoben Bao, Chen Huang, Yanghua Xiao[✉], **Bang Liu**, Yunwen Chen, "Knowing What I Don't Know: A Generation Assisted Rejection Framework in Knowledge Base Question Answering", In *International Conference on Database Systems for Advanced Applications*, pp. 238-246. Springer, Cham, 2022. (DASFAA 2022)
- [C24] Xueyao Jiang, Ailisi Li, Jiaqing Liang, **Bang Liu**, Rui Xie, Wei Wu, Zhixu Li[✉], Yanghua Xiao[✉], "Visualizable or Non-visualizable? Exploring the Visualizability of Concepts in Multi-modal Knowledge Graph", In *International Conference on Database Systems for Advanced Applications*, pp. 180-187. Springer, Cham, 2022. (DASFAA 2022)
- [C23] Shengyao Lu*, **Bang Liu***, Keith G Mills, Shangling Jui, Di Niu, "R5: Rule Discovery with Reinforced and Recurrent Relational Reasoning", In *International Conference on Learning Representations*. 2022. (ICLR 2022 Spotlight, acceptance rate 5.19%).

- [C22] Suyuchen Wang⁻, Ruihui Zhao, Yefeng Zheng, **Bang Liu**[✉], “QEN: Applicable Taxonomy Completion via Evaluating Full Taxonomic Relations”, In *Proceedings of the ACM Web Conference 2022*, pp. 1008-1017. 2022. (WWW 2022, acceptance rate 17.7%)
- [C21] Martin Weyssow, Houari Sahraoui, **Bang Liu**, “Better Modeling the Programming World with Code Concept Graphs-augmented Multi-modal Learning”, 2022 IEEE/ACM 44th International Conference on Software Engineering: New Ideas and Emerging Results (ICSE-NIER), 2022, pp. 21-25, doi: 10.1109/ICSE-NIER55298.2022.9793511.
- [C20] Yuyan Chen, Yanghua Xiao[✉], **Bang Liu**, “Grow-and-Clip: Evidence Distillation for Answer Explanation”, accepted by *ICDE 2022*.
- [C19] Xinlin Li, **Bang Liu**, Yaoliang Yu, Wulong Liu, Chunjing Xu, Vahid Partovi Nia, “ S^3 : Sparse-Sign-Shift Reparametrization for Effective Training of Low-bit Shift Networks”, *Advances in Neural Information Processing Systems 34* (2021): 14555-14566. (NeurIPS 2021)
- [C18] Zijing Ou⁺, Qinliang Su[✉], Jianxing Yu, Ruihui Zhao, Yefeng Zheng, **Bang Liu**, “Refining BERT Embeddings for Document Hashing via Mutual Information Maximization”, In *Findings of the Association for Computational Linguistics: EMNLP 2021*, pp. 2360-2369. 2021. (Findings of EMNLP 2021)
- [C17] Yi Cheng⁺, Siyao Li⁺, **Bang Liu**[✉], Ruihui Zhao, Sujian Li, Chenghua Lin, Yefeng Zheng, “Guiding the Growth: Difficulty-Controlable Multi-hop Question Generation through Step-by-step Rewriting”, In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pp. 5968-5978. 2021. (ACL 2021)
- [C16] Zijing Ou⁺, Qinliang Su[✉], Jianxing Yu, **Bang Liu**, Jingwen Wang, Ruihui Zhao, Changyou Chen, Yefeng Zheng, “Integrating Semantics and Neighborhood Information with Graph-Driven Generative Models for Document Retrieval”, In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pp. 2238-2249. 2021. (ACL 2021)
- [C15] Zhexue Chen, Hong Huang[✉], **Bang Liu**[✉], Xuanhua Shi, Hai Jin, “Semantic and Syntactic Enhanced Aspect Sentiment Triplet Extraction”, In *Findings of the Association for Computational Linguistics: ACL-IJCNLP 2021*, pp. 1474-1483. 2021. (Findings of ACL 2021)
- [C14] Zhengxu Hou⁺, **Bang Liu**[✉], Ruihui Zhao, Zijing Ou, Yi Cheng, Yefeng Zheng, “Imperfect also Deserves Reward: Multi-Level and Sequential Reward Modeling for Better Dialog Management”, In *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pp. 2993-3001. 2021. (NAACL 2021)
- [C13] Suyuchen Wang⁻, Ruihui Zhao, Xi Chen, Yefeng Zheng, **Bang Liu**[✉], “Enquire One’s Parent and Child Before Decision: Fully Exploit Hierarchical Structure for Self-Supervised Taxonomy Expansion”, In *Proceedings of the Web Conference 2021*, pp. 3291-3304. 2021. (WWW 2021, acceptance rate 20.6%)
- [C12] **Bang Liu**^{*}, Weidong Guo^{*}, Di Niu, Jingwen Luo, Chaoyue Wang, Zhen Wen, Yu Xu, “GIANT: Scalable Creation of a Web-scale Ontology”, In *Proceedings of the 2020 ACM SIGMOD International Conference on Management of Data*, pp. 393-409. 2020. (SIGMOD 2020)
- [C11] **Bang Liu**, Haojie Wei, Di Niu, Haolan Chen, Yancheng He, “Asking questions the Human Way: Scalable Question-Answer Generation from Text Corpus”, In *Proceedings of The Web Conference 2020*, pp. 2032-2043. 2020. (WWW 2020, acceptance rate 19%).
- [C10] **Bang Liu**, Di Niu, Haojie Wei, Jinghong Lin, Yancheng He, Kunfeng Lai, Yu Xu. “Matching Article Pairs with Graphical Decomposition and Convolutions”, In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, pp. 6284-6294. 2019. (ACL 2019, acceptance rate 22.7%).
- [C9] **Bang Liu**^{*}, Weidong Guo^{*}, Di Niu, Chaoyue Wang, Shunnan Xu, Jinghong Lin, Kunfeng Lai, Yu Xu. “A User-Centered Concept Mining System for Query and Document Understanding at Tencent”, In *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining*, pp. 1831-1841. 2019. (KDD 2019, acceptance rate 14.2%).
- [C8] **Bang Liu**, Mingjun Zhao, Di Niu, Kunfeng Lai, Yancheng He, Haojie Wei, Yu Xu. “Learning to Generate Questions by Learning What not to Generate”, In *The World Wide Web Conference*, pp. 1106-1118. 2019. (WWW 2019, acceptance rate 14.46%).
- [C7] Ting Zhang, **Bang Liu**, Di Niu, Kunfeng Lai, Yu Xu. “Multiresolution Graph Attention Networks for Relevance Matching”, In *Proceedings of the 27th ACM international conference on information and knowledge management*, pp. 933-942. 2018. (CIKM 2018, acceptance rate 17%).

- [C6] **Bang Liu**, Ting Zhang, Fred X. Han, Di Niu, Kunfeng Lai, Yu Xu. "Matching Natural Language Sentences with Hierarchical Sentence Factorization", In *Proceedings of the 2018 World Wide Web Conference*, pp. 1237-1246. 2018. (WWW 2018, acceptance rate **14.8%**).
- [C5] **Bang Liu**, Borislav Mavrin, Linglong Kong, Di Niu, "Recover Fine-Grained Spatial Data from Coarse Aggregation", In *2017 IEEE International Conference on Data Mining (ICDM)*, pp. 961-966. IEEE, 2017. (ICDM 2017, acceptance rate **19.9%**).
- [C4] **Bang Liu**, Di Niu, Kunfeng Lai, Linglong Kong, Yu Xu, "Growing Story Forest Online from Massive Breaking News", in *Proceedings of the 2017 ACM International Conference on Information and Knowledge Management*, pp. 777-785, 2017. (CIKM 2017, acceptance rate **20.0%**. This project won **the Extraordinary Achievement Award**, top 1 out of 18 grant holders, for 2016-2017 CCF-Tencent Rhino Bird Open Grant, on CNCC, Oct 27, Fuzhou China).
- [C3] Yaochen Hu, Yushi Wang, **Bang Liu**, Di Niu, Cheng Huang, "Latency reduction and load balancing in coded storage systems", in *Proceedings of the 2017 Symposium on Cloud Computing*, pp. 365-377, ACM, 2017. (SoCC 2017, acceptance rate **23.6%**, one of 48 accepted).
- [C2] **Bang Liu**, Borislav Mavrin, Di Niu, Linglong Kong, "House Price Modeling over Heterogeneous Regions with Hierarchical Spatial Functional Analysis", in *Proceedings of 2016 IEEE 16th International Conference on Data Mining (ICDM)*, pp. 1047-1052, IEEE, 2016. (ICDM 2016, acceptance rate **19.6%**).
- [C1] **Bang Liu**, Di Niu, Zongpeng Li, H. Vicky Zhao, "Network Latency Prediction for Personal Devices: Distance-Feature Decomposition from 3D Sampling", in *Proceedings of 2015 IEEE Conference on Computer Communications (INFOCOM)*, pp. 307-315, IEEE, 2015. (INFOCOM 2015, received the highest review scores, acceptance rate **19%**).

Journal Publications

- [J6] Qianren Mao, Xi Li, **Bang Liu**, Shu Guo, Peng Hao, Jianxin Li, Lihong Wang, "Attend and select: A segment selective transformer for microblog hashtag generation", accepted by *Knowledge-Based Systems*, available online 10 August 2022. <https://doi.org/10.1016/j.knosys.2022.109581>
- [J5] **Bang Liu**, Hanlin Zhang, Di Niu, Linglong Kong, "Factorizing Historical User Actions for Next-Day Purchase Prediction", *ACM Transactions on the Web (TWEB)* 16, no. 1 (2021): 1-26.
- [J4] Mingjun Zhao, Shengli Yan, **Bang Liu**[✉], Xinwang Zhong, Qian Hao, Haolan Chen, Di Niu, Bowei Long, "QB-SUM: a Large-Scale Query-Based Document Summarization Dataset from Real-world Applications", *Computer Speech & Language* 66 (2021): 101166.
- [J3] **Bang Liu**, Fred X. Han, Di Niu, Linglong Kong, Kunfeng Lai, Yu Xu, "Story Forest: Extracting Events and Telling Stories from Breaking News", *ACM Transactions on Knowledge Discovery from Data (TKDD)* 14, no. 3 (2020): 1-28.
- [J2] **Bang Liu**[✉], Borislav Mavrin, Linglong Kong, Di Niu, "Spatial Data Reconstruction via ADMM and Spatial Spline Regression", in *Appl. Sci.* 9, no. 9 (2019): 1733-1750; <https://doi.org/10.3390/app9091733>
- [J1] Rui Zhu, **Bang Liu**, Di Niu, Zongpeng Li, H. Vicky Zhao, "Network Latency Estimation for Personal Devices: a Matrix Completion Approach", *IEEE/ACM Transactions on Networking* 25, no. 2 (2016): 724-737.

Tutorials

- [T1] Lingfei Wu, Yu Chen, Heng Ji, **Bang Liu**, "Deep Learning on Graphs for Natural Language Processing", a half-day tutorial in *WWW 2022, AAAI 2022, IJCAI 2021, SIGIR 2021, KDD 2021*.

Books or Book Chapters

- [B1] **Bang Liu**, Lingfei Wu, "Graph Neural Networks in Natural Language Processing", In *Graph Neural Networks: Foundations, Frontiers, and Applications*, pp. 463-481. Springer, Singapore, 2022.

Theses

- [S3] **Bang Liu** (2019), "Natural Language Processing and Text Mining with Graph-structured Representations", *Ph.D. thesis, University of Alberta, Canada. Advisor: Prof. Di Niu and Prof. Linglong Kong.*
- [S2] **Bang Liu** (2015), "Matrix and Tensor Approximation for Internet Latency Prediction and Online Purchase Prediction", *M.Sc. thesis, University of Alberta, Canada. Advisor: Prof. Di Niu and Prof. Hong (Vicky) Zhao.*
- [S1] **Bang Liu** (2013), "CAPTCHA Recognition using Machine Learning", *B.Engr. thesis, University of Science and Technology of China (USTC), China. Advisor: Prof. Rong Zhang.*

Report

- [R1] **Bang Liu, Wenchao Wan, Zhichao Shen**, "The Classification of Leaves on The Continuous Static Optimal Model", *2012 Mathematical Contest in Modeling (MCM)*, February 2012.

Research Grants

- **Mila Internal Funding - Industry Sponsored Academic Labs** 09/2022 – 08/2023
\$26,500 per year. Renewable. Sole PI.
Project title: Natural Language Data Mining for Materials Discovery.
Partner Organization: Intel.
- **Intel-Mila Collaboration Grant on Material Discovery** 09/2022 – 08/2025
\$79,500 per year for 3 years. Sole PI.
Project title: Natural Language Data Mining for Materials Discovery.
Partner Organization: Intel.
- **MITACS Accelerate** 05/2023 – 04/2024
\$90,000. Sole PI.
Project title: Technical and Procedural Knowledge Extraction with Question Answering.
Partner Organization: GoodLabs Studio Inc.
- **MITACS Accelerate** 09/2022 – 04/2023
\$30,000. Sole PI.
Project title: Technical and Procedural Knowledge Extraction with Question Answering.
Partner Organization: Thales Canada Inc (Montreal, QC)
- **FRQNT Établissement de la relève professorale 2022-2023** 04/2022 – 03/2025
\$70,800. Sole PI
- **NSERC Research Tools and Instruments 2022 competition** 04/2022 – 03/2023
\$147,887. Co-PI, with Jian-Yun Nie (PI), Philippe Langlais (Co-PI).
Computing servers for NLP applications
- **Compute Canada - Resources for Research Groups 2022 competition** 04/2022 – 03/2023
5 GPU years on the cedar-gpu system, costs roughly \$12,301. Sole PI.
- **MITACS Accelerate** 02/2022 – 10/2022
\$30,000. Sole PI.
Project title: Objective and informative summary of opinions
- **Canada CIFAR AI Chair** 09/2021 – 08/2026
\$500,000 total for five years. Sole PI.
- **NSERC Discovery Grant and Discovery Launch Supplement** 04/2021 – 03/2026
\$170,000 + 12,500 total for five years. Sole PI.
- **Mila Startup Fund** 10/2020 – 03/2023
\$100,000 total for three years. Sole PI.
- **Université de Montréal New Teachers' Startup Fund** 08/2020 – 07/2023
\$100,000 total for three years. Sole PI.

Workshops

- **Deep Learning on Graphs for Natural Language Processing (DLG4NLP@NAACL'22)**
Program Co-Chairs: Lingfei Wu, **Bang Liu**, Rada Mihalcea, Jian Pei, Yunyao Li, Yue Zhang
Location and Time: Hybrid: Seattle, Washington and Online, July 15, 2022
 - **Deep Learning on Graphs for Natural Language Processing (DLG4NLP@ICLR'22)**
Program Co-Chairs: Lingfei Wu, **Bang Liu**, Rada Mihalcea, Jian Pei, Yunyao Li, Yue Zhang
Location and Time: Online, April 29, 2022
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Invited Talks

- **Identify Event Causality with Knowledge and Analogy**
NeurIPS ENLSP 2022 Workshop, December 2022;
Montreal Data Systems meet Data Science Workshop 2022, October 2022.
 - **Relational Reasoning with Rule Discovery**
DataFunSummit 2022, June 2022.
 - **Evaluating QA: Question Quality, Model Capability, and Answer Explainability**
Mila TechAid 2022, Quebec, Canada, April 2022.
 - **Knowledge Graphs: Extracting and Leveraging Meaning from Unstructured Text**
IVADO & CLIQ-ai, Quebec, Canada, February 2022.
 - **Data-Efficient Learning with Augmentation, Evaluation, and Collaboration**
Renmin University, China, July 2021;
RALI-OLST seminar, Université de Montréal, Canada, October 2021;
Beihang University, China, November 2021;
McGill AI Learnathon, Canada, March 2022.
 - **Graph Machine Learning for Hot Events Discovery and User Interests Modeling**
DataFun Summit, China, October 2021;
CLIQ-ai.quebec NLP meetup, November 2021.
 - **Natural Language Processing and Its Applications**
City University of Hong Kong, China, September 2021.
 - **Data, Knowledge, and Logic: Modeling and Reasoning for Natural Language Understanding**
Queen's University, Canada, April 2021;
Université du Québec à Montréal, Canada, October 2021.
 - **Question Generation and Ontology Creation for Low-Resource NLP**
MILA, Montreal, Canada, December 2020.
 - **Graph-Powered Natural Language Processing**
DeepMind, Montreal, Canada, February 2020;
Fudan University, Shanghai, China, June 2020;
University of Chinese Academy of Sciences, Beijing, China, July 2020;
Zhejiang University, Hangzhou, China, December 2020.
 - **Natural Language Processing and Text Mining with Graph-structured Representations**
Université de Montréal, Montreal, Canada, February 2020;
University of Georgia, Athens, Georgia, United States, February 2020.
 - **Graphical Modeling and Convolutions for Natural Language Processing**
Tencent PCG, Shenzhen, China, July 2019.
 - **Beyond Sequence-to-Sequence: Graphical Modeling and Convolutions for Text Clustering, Matching, Generation and Understanding**
Tencent AI Lab, Shenzhen, China, June 2019.
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Service and Professional Activities

- **Program Committee Chairs**
2022 - ICLR'22 DLG4NLP Workshop, NAACL'22 DLG4NLP Workshop, NeurIPS ENLSP 2022 Workshop
- **Area Chair**
2023 - EACL, ACL
2022 - EMNLP
- **Program Committee Member**
2023 - AAAI, WSDM, The Web Conference (WWW), KDD, SIGIR
2022 - ACL-IJCNLP, COLING, KDD, The Web Conf, AAAI-DLG, AAAI, WSDM, CIKM
2021 - KDD, KDD-DLG, NeurIPS-ENLSP, EMNLP, CIKM, AAAI, WSDM, ICKG, PIC
2020 - ICML, ICKG, PIC
- **Evaluation Committee Member**
2023 - Master's Training Awards for La Francophonie-FRQNT
2022 - New Frontiers in Research Fund (NFRFE), Mitacs Accelerate research internship
2021 - IVADO Postdoc competition, New Frontiers in Research Fund (NFRFE)
- **Reviewer for Conferences**
2023 - ACL ARR December 2022
2021 - NAACL, KDD
2020 - COLING, KDD
2018 - AAAI
2017 - INFOCOM
- **Reviewer for Journals**
2023 - Transactions on Information Systems (TOIS)
2022 - Foundations and Trends in Machine Learning, IEEE Transactions on Sustainable Computing Systems (TSUSC), Information Science, Knowledge-Based Systems, Applied Intelligence, Computer Speech & Language, Pattern Recognition
2021 - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Journal of Artificial Intelligence Research (JAIR), IEEE Transactions on Sustainable Computing (TSUSC), Pattern Recognition (PR), Information Sciences, Language Resources and Evaluation (LREV), IEEE Transactions on Neural Networks and Learning Systems (TNNLS), Knowledge-Based Systems (KBS)
2019 - IEEE/ACM Transactions on Networking (ToN)
2018 - IEEE Transactions on Mobile Computing (TMC)
2017 - IEEE Transactions on Mobile Computing (TMC)
- **Review Editor**
Since 2021 - Frontiers in Signal Processing

Teaching

NLP Training Series - Knowledge Graph	IVADO & CLIQ-ai, Winter 2023
IFT 6759 - Advanced Machine Learning Projects	Université de Montréal, Winter 2023
IFT 6289 - Natural Language Processing with Deep Learning	Université de Montréal, Winter 2023
NLP Training Series - Knowledge Graph	IVADO & CLIQ-ai, Winter 2022
IFT 3335 - Artificial Intelligence	Université de Montréal, Winter 2022
IFT 6289 - Natural Language Processing with Deep Learning	Université de Montréal, Winter 2022
IFT 6010 - Modern Natural Language Processing	Université de Montréal, Winter 2021

Supervision

- **PhD Students:**
 - Kyle Roth 03/2022 - present
 - Sifan Wu 01/2022 - present
 - Haochen Shi 09/2021 - present
 - Qianggang Ding 09/2021 - present
 - Suyuchen Wang, Artificial Intelligence Scholarship 01/2021 - present

- **Master Students with Thesis:**
 - Zhiyuan Sun 09/2022 - present
 - Tony Yuan 03/2022 - present
 - Breau Pierre-William, Graduate and Postdoctoral Excellence Scholarships 09/2021 - present
- **Master Students with Internship:**
 - Bowei Ke 01/2023 - present
 - Shuqi Zhu 01/2023 - present
 - Chrys Ngouma 05/2021 - 12/2022
 - Gustavo Patino 06/2021 - 05/2022
 - Maya Abou Rjeili 06/2021 - 04/2022
 - Mohamed Amine Laazizi 06/2021 - 07/2022
- **Visiting Students and Scholars:**
 - Bibo Cai, Visiting PhD 12/2022 - present
 - Hyeonjin Lee, Mitacs Globalink Research Award - National Research Foundation of Korea 09/2021 - 04/2022
 - Zhong Zhang, China Scholarship Council Visiting PhD 12/2021 - 12/2022
 - Chen Wang, China Scholarship Council Visiting Scholar 10/2021 - 12/2022
- **Research Interns:**
 - Jerry Zhu 01/2023 - present
 - Younes Hourri, NSERC Undergraduate Student Research Award 05/2022 - 08/2022
 - Wangjie Jiang 10/2021 - 05/2022
 - Seyed Ali Marashian Saraei 07/2021 - 09/2021
 - Meng Zhang 11/2020 - 02/2021
 - Huaisheng Zhu 10/2020 - 02/2021
 - Jingwen Wang 07/2020 - 02/2021
 - Yi Cheng 06/2020 - 06/2022
 - Sirao Li 06/2020 - 08/2020
 - Zijing Ou 05/2020 - 06/2021
 - Zhengxu Hou 03/2020 - 02/2021
 - Jiayuan Ding 03/2020 - 05/2022
 - Tong Xiang 03/2020 - 05/2022

Students Evaluation

- **Jury Member for PhD Thesis Evaluation:**
 - Yifan Nie (Computer Science) 02/2022
 - Nonvikan Karl-Augustt Alahassa (Statistics) 08/2021
- **Jury Member for PhD Pre-doc III Defense:**
 - Yunhe Li (Computer Science), président-rapporteur 01/2023
 - Mouna Dhaouadi (Computer Science) 12/2022
 - Oussama BEN SGHAIER (Computer Science) 12/2022
 - Peng Lu (Computer Science) 08/2022
 - Shengchao Liu (Computer Science) 12/2021
 - Kirill Brodt (Computer Science) 08/2021
 - Frédéric Piedboeuf (Computer Science) 08/2021
- **Jury Member for MSc Thesis Evaluation:**
 - Uros Petricevic (Computer Science), président-rapporteur 01/2023
 - Parviz Haggi (Computer Science), président-rapporteur 12/2022
 - Fahed Elourajini (Computer Science) 07/2022
 - Yabo Ling (Computer Science) 03/2022
 - Thomas MacDougall (Computer Science) 09/2021
 - Jean Archambault (Computer Science), président-rapporteur 07/2021
- **Jury Member for MSc Internship Report Evaluation:**
 - Kavin Patel (Computer Science) 02/2023
 - Wei Wei (Computer Science) 10/2022

- Haoyu Zhang (Computer Science)
- Lifeng Wan (Computer Science)

05/2022
08/2021

Professional Membership

CRM Le Centre de recherches mathématiques (CRM)	05/2022 - present
ACM Association for Computing Machinery	01/2021 - present
ACL The Association for Computational Linguistics	01/2021 - present
IEEE Institute of Electrical and Electronics Engineers	01/2014 - present
AAAI Association for the Advancement of Artificial Intelligence	01/2021 - present