

Qi Chen (She/Her)

Portfolio: livreq.github.io

Google Scholar

Email: qichen@cs.toronto.edu

Mobile: +1-581-587-4895

EDUCATION

- **University of Toronto** Ontario, Canada
Postdoc - Data Science Institute and Robotics Institute. *Apr. 2024 - Present*
Supervisor: Prof. Florian Shkurti, Co-supervisors: Prof. Chris Maddison and Prof. Alan Aspuru-Guzik.
- **Vector Institute** Ontario, Canada
Faculty Affiliate Researcher *Jun. 2024 - Present*
- **Université Laval** Québec, Canada
Ph.D. in Computer Science at GRAAL Lab, supervised by Prof. Mario Marchand *Sept. 2019 - Mar. 2024*
- **Institut Polytechnique de Paris (Télécom Paris)** Paris, France
Diplôme d'ingénieur (Master) - Image Processing and Machine Learning; *Sept. 2014 - Jul. 2016*
The original 9+9 Master Program between 9 Top French Grande-Ecoles and Chinese Universities.
- **Southeast University** Nanjing, China
Bachelor - Information Engineering; *Sept. 2010 - Jun. 2014*
Chien-Shiung Wu Honors College (Talent Training Program in Electrical and Computer Engineering)

PUBLICATIONS

- [Thesis] **Qi Chen**. "Theoretical framework for prior knowledge transfer in deep learning", 2024.
- Gezheng Xu, **Qi Chen**, Charles Ling, Boyu Wang, Changjian Shui. "Intersectional Unfairness Discovery." International Conference on Machine Learning (ICML) 2024.
- **Qi Chen**, Changjian Shui, Ligong Han, and Mario Marchand. "On the Stability-Plasticity Dilemma in Continual Meta-Learning: Theory and Algorithm." Advances in Neural Information Processing Systems (NeurIPS), 2023.
- **Qi Chen**, and Mario Marchand. "Algorithm-Dependent Bounds for Representation Learning of Multi-Source Domain Adaptation." International Conference on Artificial Intelligence and Statistics (AISTATS), 2023.
- **Qi Chen**, Changjian Shui, and Mario Marchand. (**Spotlight**, 3% of submissions)"Generalization Bounds for Meta-learning: An Information-theoretic Analysis." Advances in Neural Information Processing Systems (NeurIPS), 2021.
- Changjian Shui, **Qi Chen**, Jiaqi Li, Boyu Wang, and Christian Gagné. "Fair Representation Learning through Implicit Path Alignment." International Conference on Machine Learning (ICML), 2022.
- Changjian Shui, Gezheng Xu, **Qi Chen**, Jiaqi Li, Charles X. Ling, Tal Arbel, Boyu Wang, and Christian Gagné. "On learning fairness and accuracy on multiple subgroups." Advances in Neural Information Processing Systems (NeurIPS), 2022.
- Changjian Shui, **Qi Chen**, Jun Wen, Fan Zhou, Christian Gagné, and Boyu Wang. "A novel domain adaptation theory with Jensen-Shannon divergence." Knowledge-Based Systems, 2022.
- Ligong Han, Song Wen, **Qi Chen**, Zhixing Zhang, Kunpeng Song, Mengwei Ren, Ruijiang Gao, Anastasis Stathopoulos, Xiaoxiao He, Yuxiao Chen, Di Liu, Qilong Zhangli, Jindong Jiang, Zhaoyang Xia, Akash Srivastava, Dimitris Metaxas. "Proxedit: Improving tuning-free real image editing with proximal guidance." WACV 2024.

INDUSTRIAL RESEARCH EXPERIENCE

- **Bytedance Inc., Risk Control** Shenzhen
Senior Researcher and Developer in NLP *May. 2019 - Sept. 2019*
- **Baidu Inc., Emerging Business Group** Shenzhen
Senior Researcher and Developer in NLP and ASR *Jun. 2017 - May. 2019*
- **Samsung Research China, Machine Learning Lab** Beijing
Junior Researcher in Computer Vision *Dec. 2016 - Feb. 2017*

TEACHING AND RESEARCH SERVICE

- **TA:** GLO2100: Data Structure and Algorithm for Engineer, Laval University. 2019-2022
- **Conference Reviewer:** AISTATS (2020, 2023, 2024); ICML (2022, 2023, 2024); NeurIPS (2022, 2023, 2024); ICLR (2024)
- **Journal Reviewer:** TMLR; TNNLS

HONORS AND AWARDS

- Postdoc Fellowship of Data Science Institute, University of Toronto, 2024-2025
- Honour List of Doctorate Program Graduates, Université Laval, 2024
- Top Reviewers of NeurIPS 2022 (top 10%)
- Department Quarter Award at Baidu, 2018
- Scholarship of Chinese Government for Abroad Master Study: 2014-2016
- Second prize of **National** Undergraduate Mathematical Contest in Modeling(CUMCM), top 8%: Sept. 2012
- Second prize of **Provincial** Undergraduate Electronic Design Contest (Texas Instrument Cup): Aug. 2012
- Excellence Award of **National** Student Innovation Training Program: May 2013
- Honor of **Academic Excellent** Undergraduate Student of Southeast University, top 3%: 2011, 2012, 2013
- Merit Undergraduate Student of Southeast University: 2011-2013
- Jin Sheng Enterprise Scholarship: 2012
- First prize of the Mathematical Contest in Modeling of Southeast University, top 0.5%: Jun.2012

SKILLS SUMMARY

- **Programming:** Python, C++, SQL, JavaScript, Shell Script, JAVA, Scala, Matlab, etc...
- **Frameworks:** Latex, Pytorch, Sklean, Caffe, Tensorflow, Keras, Hadoop, Spark, Mecab, etc...
- **Tools:** Kubernetes, Docker, GIT, MySQL, SQLite
- **Language:** Chinese, English, French