

Education

- **University of Toronto** Toronto, ON
Ph.D. Computer Science 2017 - ongoing
 - Generative modeling, representation learning, and differential equations in machine learning.
 - Supervisor: David Duvenaud
- **University of British Columbia** Vancouver, BC
M.Sc. Computer Science (Research Thesis Track) 2015 - 2017
 - Research thesis on kernel methods and probabilistic modeling applied to computer vision.
 - Supervisor: Mark Schmidt
- **University of British Columbia** Vancouver, BC
B.Sc. Combined Honours in Statistics and Computer Science 2010 - 2015
 - Awarded the annual Nash Medal for “most outstanding graduating student” in Statistics.
 - Summer research supervisor: Kevin Leyton-Brown

Research

Conference Publications

- Scalable Gradients and Variational Inference for Stochastic Differential Equations.
X. Li, T. L. Wang, **R. T. Q. Chen**, D. Duvenaud.
International Conference on Artificial Intelligence and Statistics (AISTATS). 2020.
- SUMO: Unbiased Estimation of Log Marginal Probability for Latent Variable Models.
Y. Luo, A. Beatson, M. Norouzi, J. Zhu, D. Duvenaud, R. P. Adams, **R. T. Q. Chen**.
International Conference on Learning Representations (ICLR). 2020.
- Neural Networks with Cheap Differential Operators.
R. T. Q. Chen, D. Duvenaud.
Advances in Neural Information Processing Systems (NeurIPS). 2019.
- Residual Flows for Invertible Generative Modeling.
R. T. Q. Chen, J. Behrmann, D. Duvenaud, J. Jacobsen.
Advances in Neural Information Processing Systems (NeurIPS). 2019.
- Latent ODEs for Irregularly-Sampled Time Series.
Yulia Rubanova, **R. T. Q. Chen**, D. Duvenaud.
Advances in Neural Information Processing Systems (NeurIPS). 2019.
- Invertible Residual Networks.
J. Behrmann, W. Grathwohl, **R. T. Q. Chen**, D. Duvenaud, J. Jacobsen.
International Conference on Machine Learning (ICML). 2019.

FFJORD: Free-form Continuous Dynamics for Scalable Reversible Generative Models.
W. Grathwohl, **R. T. Q. Chen**, J. Bettencourt, D. Duvenaud.
International Conference on Learning Representations (ICLR). 2019.

Neural Ordinary Differential Equations.
R. T. Q. Chen, Y. Rubanova, J. Bettencourt, D. Duvenaud.
Advances in Neural Information Processing Systems (NeurIPS). 2018.

Isolating Sources of Disentanglement in Variational Autoencoders.
R. T. Q. Chen, X. Li, R. Grosse, D. Duvenaud.
Advances in Neural Information Processing Systems (NeurIPS). 2018.

Learning Motion Predictors for Smart Wheelchair using Autoregressive Sparse Gaussian Process.
Z. Fan, L. Meng, **T. Q. Chen**, J. Li, I. Mitchell.
International Conference on Robotics and Automation (ICRA). 2018.

Workshop-only Publications

Fast Patch-Based Style Transfer of Arbitrary Style. [Oral]
T. Q. Chen and M. Schmidt.
Workshop in Constructive Machine Learning, NeurIPS. 2016.

Industry Experience

- **Research Scientist Intern** Toronto, ON
Google Summer 2019
- **Software Engineer Intern** New York, NY
Google Summer 2018
- **Applied Scientist Intern** Seattle, WA
Amazon.com Inc Summer 2017
- **Software Developer Engineer Intern** Seattle, WA
Amazon.com Inc Summer 2013

Awards & Fellowships

Facebook Fellowship in Machine Learning 2019-2021
NeurIPS 2018 Best Paper Award 2018
AABI Workshop 2018 Best Student Paper Award 2018
NSERC Postgraduate Scholarships-Doctoral 2018-2021
Graduate Teaching Assistant Award 2017
Nash Medal “Most Outstanding Graduating Student” in Statistics 2015
Science Undergraduate Research Experience 2014

Invited Talks

NVIDIA GPU Technology Conference 2020	Mar 2020
Spotlight Talks (2) at Conference on Neural Information Processing Systems 2019	Dec 2019
Contributed Talks (2) at Invertible Networks & Normalizing Flows Workshop	Jun 2019
SIAM Conference on Computational Science and Engineering (CSE19)	Feb 2019
Google Brain Toronto	Jan 2019
Oral Presentation at NeurIPS Conference	Dec 2018
Princeton University, Laboratory for Intelligent Probabilistic Systems	Sep 2018
Columbia University, Statistical ML and Computational Neuroscience	Aug 2018
New York University, Center for Data Science	Aug 2018
Oral Presentation at Constructive Machine Learning Workshop	Dec 2016

Community Contributions

Reviewer for NeurIPS 2018/2019, ICLR 2019/2020, ICML 2019, various workshops.
 Co-organizer for Workshop on Invertible Networks and Normalizing Flows at ICML 2019.