

Experience

- **TMX Group** *Research Intern* (Jan 2019 - Apr 2019)
 - Developed a generative model and latent representation for market conditions.
 - Showed that latent representations that generate low reconstruction and predictive error are useful in interpreting market state and dynamics.
- **Rubikloud Technologies Inc.** *Data Science Research Intern* (May 2017 - Dec 2018)
 - Developed a novel individualized demand forecasting model for joint predictions over multiple products using a Recurrent Neural Network (RNN-LSTM) implemented in **Tensorflow**.
 - The model takes into account partial information by framing the problem in a survival analysis context. RNN parameters are trained by minimizing a conditional excess loss.
- **University of Toronto** *Student Researcher - Micro-Level IBNR Reserving* (May-Aug 2016)
 - Implemented a Hidden Markov Model in which latent states determine true claim arrival intensity and reporting delay determines thinning parameters for the reported claim arrival process.
 - Showed that this model is much better able to predict the number of unreported claims compared to traditional aggregate models commonly used in the Actuarial practice.

Education

- **UNIVERSITY OF TORONTO**
Hons BSc Statistics (2012 - 2016), *MSc Statistics* (2016 - 2017), *PhD Statistics* (2017 -)
 - Coursework includes topics in Applied Statistics, Measure Theory and Machine Learning.
 - Performed teaching and grading duties for Probability, Multivariate Data Analysis, Statistical Methods for Machine Learning.

Publications

- **Chen T.**, Keng B., Moreno J., *Multivariate Arrival Times with Recurrent Neural Networks for Personalized Demand Forecasting*, 2018, Published in Proceedings of IEEE ICDM 2018 DMS Workshop.
- Badescu A.L., **Chen T.**, Lin S., Tang D., *A Marked Cox model for the Number of IBNR Claims: Estimation and Application*, 2018, Submitted to ASTIN Bulletin.

Technical Skills

- Proficient in {Python, R} as well as {Tensorflow, Keras, Scikit-Learn} for Machine Learning.
- Experienced in SQL and Spark for distributed computing on large data-sets.
- Familiar with version control using GitHub and operating in Linux environments.

Awards

- **NSERC Engage, Mitacs Accelerate** (2017-18)
Award value of 25,000 CAD and 15,000 CAD respectively for research partnership.
- **Ontario Graduate Scholarship - Masters** (2016-17)
Award value of 15,000 CAD for progress in graduate studies.

Last Updated: March 20, 2019