
Experience

- **Kinaxis** *Advisory Machine Learning Developer, Applied Research* (Oct 2020 - Current)
 - Engineering a configurable end-to-end machine learning platform on **RapidResponse**.
 - Led cross-functional design sessions to implement configurable and functionally scale-able feature engineering pipelines and components. Implemented temporal aggregation and expansion functionality to reconcile multiple time-resolutions in **Spark**.
 - Leading documentation efforts and internal technical discussions to improve team expertise and on-board new members. Provided guidance to a MSc student for an academic research project on data linkage.
- **Rubikloud Technologies (Now Kinaxis)** *Data Scientist* (May 2019 - Oct 2020)
 - Optimizing promotional effectiveness and inventory for retailers with accurate demand forecasts.
 - Developed a general representation for promotion mechanics, reducing forecast errors by 50% and allowed for combining and comparing different promotion types.
 - Implemented feature extraction and training pipelines on **GCP** with **Spark** and **Kubernetes**. Deployed visualization service using **Bokeh**. Prototyped model deployment using **MLflow**.
- **TMX Group** *Research Intern* (Jan 2019 - Apr 2019)
 - Created representations for market volatility state with a variational auto-encoder using **Tensorflow**.
 - Extracted minute-level features from orders and trade tables in **Spark**.
- **Rubikloud Technologies Inc.** *Data Science Research Intern* (May 2017 - Dec 2018)
 - Developed a novel individualized demand forecasting model for joint purchase time predictions over multiple products by adapting a survival loss function to a recurrent neural network in **Tensorflow**.

Publications

- Badescu A.L., **Chen T.**, Lin S., Tang D., *A Marked Cox model for the Number of IBNR Claims: Estimation and Application*, 2019, ASTIN Bulletin, Volume 49, Issue 3, pp. 709-739. <https://doi-org.myaccess.library.utoronto.ca/10.1017/asb.2019.15>
- **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. <https://arxiv.org/abs/1812.11444>

Education

- **University of Toronto** *PhD Statistics, Withdrew from Program* (2017 - 2019)
 - Awarded grants NSERC Engage (25,000 CAD) and Mitacs Accelerate (15,000 CAD) for research with Rubikloud Technologies Inc.
 - Awarded grants Mitacs Accelerate (10,000 CAD) for research with TMX Group Inc.
- **University of Toronto** *MSc Statistics, GPA: 3.80/4.00* (2016 - 2017)

Last Updated: March 9, 2021