Colin (Kejin) Wan

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Education

New York University, New York
Master of Science in Data Science, Expected: ***Sept. 2020 - Jun. 2022***
University of Toronto, *Toronto*
Bachelor of Science, Math Specialist and Statistical Major *Major GPA: 3.85/4.00*

Technical Skills

Programming: *Python, R, SAS, SQL, MATLAB, Octave*
Machine Learning Library (Python): *PyTorch, TensorFlow, Scikit-Learn*

Awards

Dean's List Scholar: *2015-2016, 2017-2018*

Publication

SynC*: A Unified Framework for Generating Synthetic Population with Gaussian Copula. - Kejin (Colin) Wan, Zheng Li, Yue Zhao, PPAI 2020*

Expereinces

Teaching Assistant, *University of Toronto* ***Sept. 2018 - May. 2020***
- Taught MAT137 (Calculus), STA257 (Probability)
- Conducted tutorials to help students review current topic.
- Hosted office-hours to clarify questions from students.

Data Scientist, *PricewaterhouseCoopers* ***Sept. 2018 - Aug. 2019***
- Discussed with clients to rationalize and specify their needs.
- Designed and implemented segmentation models and service recommender systems.
- Developed statistical models for synthetic population.

Quantitative Research Analyst, *Universal Portfolio* ***May. 2018 - Dec. 2018***
- Researched the field of digital currency and sought potential profiting opportunities.
- Modeled and predicted the future trend by quantitatively analysing available data.
- Back tested the current investment strategy and optimized current portfolio.

Peer Mentor, *University of Toronto* ***Jan. 2018 - May. 2018***
- Hosted group sessions for mentees and introduce them to various career pathways.
- Leaded mentees to official events and introduced the resources school provided.

Research/ Projects

High Frequency and Algorithmic Trading
University of Toronto, Department of Statistics ***Sept. 2019 - May. 2020***
- Analyzed high frequency trading algorithms and model strategy outcomes.
- Visualized trading algorithms and contrast results of different strategies.
- Implemented stochastic models and simulated trading process for each algorithm.

Synthetic Population via Copulas Based Dependency Model (Published)
PricewaterhouseCoopers ***Sept. 2018 - Feb. 2020***
- Proposed a copulas based algorithm to capture conditional dependencies among features.
- Compiled a sample population for downtown Toronto to verify the model.
- Accompanying paper is accepted at the workshop of AAAI 2020.

Local Feature interpretability of Black-Box Model
PricewaterhouseCoopers ***Sept. 2018 - Present***
- Proposed an Info-GAN based algorithm to understand the black-box model of any classifier.
- Designed a GAN based architecture to capture latent feature of a given classifier.
- Tested the results of proposed architecture on existing complex models. [0.25cm]

Competition/ Volunteer/ Leadership Experiences

- ***Datafest*** *Department of Statistics, University of Toronto* ***May. 2020***
- ***Datafest - 2nd Place*** *Department of Statistics, University of Toronto* ***May. 2019***
- ***Financial Data Case Competition*** *RiskLab, University of Toronto* ***Mar. 2018***
- ***Project Assistant*** *RiskLab, University of Toronto* ***Jan. 2018 - May. 2018***
- ***Rotman Portfolio Management Competitions*** *Rotman School* ***Oct. 2017***
- ***Statistic Lecturer*** *Talent Education, Toronto* ***Mar. 2017 - Aug. 2017***
- ***Vice President*** *UTFUN, University of Toronto* ***Sept. 2015 - Aug. 2018***

Interests

Exercising, Philosophy, Hiking, Travelling.