TIANYU DU

Undergraduate at University of Toronto, Economics and Mathematics Specialist Program

CONTACTS

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EDUCATION

Stanford University, United States *September 2020 - June 2022*
Master of Science in Management Science & Engineering
Incoming Graduate Student, Focus: Computational Social Science.

University of Toronto, Canada *September 2017 - June 2020*
Honours Bachelor of Science, Economics & Mathematics
Cumulative GPA: 4.00/4.00, Course Average: 95%.

Stanford University, United States *June 2019 - August 2019*
Summer Session, Program of Intensive Studies in Data Science
Cumulative GPA: 4.30/4.30, Course Average: 99%.

RESEARCH INTERESTS

Machine Learning Methods and their Applications on Time Series Forecasting.
Computational Social Sciences.

SCHOLARSHIPS & AWARDS

Mc Nab Undergraduate Scholarship *December 2019*
Alexander Mackenzie Scholarship In Economics And Political Science *October 2019*
International Experience Award (Killam American Fund for International Exchange) May 2019
Dean's List Scholar2017-18 and 2018-19 *2017-2018*

ACTIVITIES & PROJECTS

Thesis on Forecasting Crude Oil Returns using News Sentiment and Machine Learning
Honours Essay in Applied Microeconomics *September 2019 - April 2020*

TD Rotman FinHub TDMDAL Hackathon *February 2020*
Finalist Group (Top 5)
In this project, we developed a dictionary based NLP process extracting information from transcripts of earning calls of S&P 500 companies, and predict stock price movement on the next trading day.

Patient Data Analysis on PANSS Dataset *June 2019 - August 2019*
The Final Project for STATS202 at Stanford University (1^{st} place in class)
Positive and Negative Syndrome Scale (PANSS) scores of schizophrenia patients were used to test treatment effects, k-means and Gaussian mixture were used to cluster patients based on scores prior to treatment. SVM, random forests, and boosting machines were developed to detect potential invalid assessments and forecast patients' future psychological states.

Special Topics in Mathematics: Mathematical Economics *May 2019 - June 2019*

[0]Resume compile date: 19:42 Wednesday 25^{th} March, 2020

Supervisor: Robert J. McCann
A supervised learning program focusing on microeconomic theory with mathematical rigour. Topics included duality theory in optimization, consumer and producer theory, partial and general equilibrium, as well as market failures like adverse selection.

CIBC Machine Intelligence Hackathon *September 2018*
Finalist Group (Top 5)
An auto-encoder-decoder architecture neural network was implemented to detect fraud in medical insurance claims.

SKILLS

Programming Skills Python (proficient in PyTorch, Sci-kit Learn, Pandas, Numpy, etc); R; STATA; Matlab; Mathematica; Bash; Git; Latex.
Development Server deployment on Amazon Web Services (AWS) and Google Cloud Platform (GCP).

RECENT EXTRA-CIRRUCULAR

Volunteer: Economics Peer Mentorship Program, as Mentor. *October 2019 - April 2020*
Volunteer: University of Toronto, Representative at the Learning Abroad Fair. *November 2019*
Volunteer: University of Toronto, Second Year Learning Community Panel, as Panelist. *October 2019*