Tianyu Du

Undergraduate at University of Toronto, Economics, Mathematics and Computer Science

Contacts

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Educations

Sep. 2017 - Jun. 2020 (Expected) — **University of Toronto**, Toronto, Canada.
Honours Bachelor of Science
Programs Economics&Mathematics Specialist and Computer Science Minor
Relevant Courses: Real analysis, Game Theory, Non-linear optimization
Time Series Analysis, Econometrics, Microeconomics (PhD)
Cumulative GPA: *4.00/4.00*

Jun. 2019 - Aug. 2019 — **Stanford University**, California, United States.
Summer Session, Intensive Studies Program in Data Science
Courses: Machine Learning (Graduate), Data Mining and Analysis (Graduate),
Theory of Probability (Undergraduate).
Cumulative GPA: 4.30/4.30; Course Average: 99%

Sep. 2014 - Jun. 2017 — **Hangzhou Foreign Language School**, Hangzhou, China.
General Certificate of Education, A Level by Cambridge International Examinations
Advanced Placement (AP)

Scholarships and Awards

Jun. 2019	Dean's List Scholar (2018-19)
Jan. 2018	Dean's List Scholar (2017-18)
May. 2019	International Experience Award (Killam American Fund for International Exchange $ 5,000)

Research Interests

- Machine Learning Methods for Econometrics and Casual Inferences.
- Computational Economics, Game Theory, and Market Design.
- Machine Learning Methods and their Applications on Time Series Forecasting.

Activities & Projects

Jun. 2019 - Aiug. 2019 **Treatment Effect, Clustering, Classification, and Forecasting using PANSS data**
The Final Project for STATS202 at Stanford University
Positive and Negative Syndrome Scale (PANSS) scores of schizophrenia patients were used to test treatment effects, clustering patients based on prior-treatment scores. Moreover, SVM, random forests, and boosting machines were developed to flag invalid assessments and forecast patients' future states.

May. 2018 - Present. **Artificial Neural Networks in Economic Forecasting**
Independent Research
Evaluating and comparing the relative performances of neural networks and traditional models on time series forecasting.

May. 2019 - Jun. 2019 **Independent Reading in Mathematics: Mathematical Economics**
Supervisor: Robert J. McCann
Reading in microeconomic theories with rigorous mathematical proofs.

Sep. 2018 **CIBC Machine Intelligence Hackaton**
Finalist Group (Top 5)
An auto-encoder-decoder architecture neural network was implemented to catch fraud in medical insurance

Skill Sheet

- Programmings: Python including TensorFlow, PyTorch, Sci-kit Learn, Numpy, and various data visualization toolkits; R; STATA; Matlab; Mathematica; Bash.
- Development: Server deployment on Amazon Web Services (AWS) and Google Cloud Platform (GCP).
- Data Analysis & Machine Learning: Solid mathematical and statistical foundations for statistical learning models.