TIANYU DU

Undergraduate Student Studying Economics and Mathematics at University of Toronto

CONTACTS & PERSONAL INFO

Email tianyu.du@mail.utoronto.ca
Phone (+1)647-886-7951
Website www.tianyudu.com
Github www.github.com/tianyudu
LinkedIn https://www.linkedin.com/in/tianyu-du-7a56a7155

EDUCATION

University of Toronto, Canada *Sep. 2017 - Jun. 2020(Expected)*
Honours Bachelor of Science.
Program: Economics & Mathematics Specialist.
Cumulative GPA: 4.00/4.00, Course Average: 94%.

Stanford University, United States *Jun. 2019 - Aug. 2019*
Summer Session.
Program: Intensive Study in Data Science.
Courses: CS229:Machine learning, STATS202:Data Mining and Analysis, STATS116:Theory of Probability(Undergraduate).
Cumulative GPA: 4.30/4.30, Course Average: 99%.

SCHOLARSHIPS & AWARDS

Alexander Mackenzie Scholarship In Economics And Political Science *Oct. 2019*
Dean's List Scholar(2018-19) *Jun. 2019*
International Experience Award (Killam American Fund for International Exchange) May. 2019
Dean's List Scholar(2017-18) *Jan. 2018*

SKILLS

Programmings Python including TensorFlow, PyTorch, Sci-kit Learn, Pandas, 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.

ACTIVITIES & PROJECTS

Patient Data Analysis on PANSS Dataset *Jun.2019 - Aug.2019*
The Final Project for STATS202 at Stanford University (Final Report Class Top)
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. Moreover, SVM, random forests, and boosting machines were developed to detect potential invalid assessments and forecast patients' future psychological states.

Artificial Neural Networks in Economic Forecasting *May.2018 - Jun.2019*
Independent Research
This project compared artificial neural networks and classical models on financial time series. Specifically, fully connected and RNN with LSTM cells were used on exchange rate forecasting, which had

outperformed existing ARIMA and VAR models.

Independent Reading in Mathematics: Mathematical Economics *May.2019 - Jun.2019*
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 *Sep.2018*
Finalist Group (Top 5)
An auto-encoder-decoder architecture neural network was implemented to detect fraud in medical insurance claims.

EXTRA-CIRRUCULAR

Economics Peer Mentorship Program (as Mentor) *Oct.2019 - Apr.2020*

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.

OTHER COURSES

Coursera Practical Time Series Analysis; Machine Learning; Serverless machine learning with Tensorflow on Google cloud platform; Social and economic networks: models and analysis; Sequence models (recurrent neural networks); Mathematics for machine learning: multivariate calculus.
Nvidia Accelerated computing with CUDA python.