Tianyu Du

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

Personal Data

Date of Birth:	01 May 1999
Address:	One Bedford Rd., Toronto, Canada
Phone:	+1 647-886-7951
University email	tianyu.du@mail.utoronto.ca
Personal email:	i@tianyudu.com
LinkedIn:	https://www.linkedin.com/in/tianyu-du-7a56a7155/
Personal Site:	www.TianyuDu.com
Github:	https://github.com/TianyuDu

Education

Sep. 2017 - Present **University of Toronto**, Toronto, Canada
Honours Bachelor of Science (second year)
Programs taken: Economics&Mathematics Specialist and Computer Science Minor
Current cGPA: *4.00/4.00*

Sep. 2014 - Jun. 2017 **Hangzhou Foreign Language School**, Hangzhou, China
General Certificate of Education, A Level by Cambridge International Examinations
Courses taken: *Economics, Mathematics, Further Mathematics, Physics, English.*
Advanced Placement
Exam taken: *Microeconomics, Macroeconomics.*

Scholarships and Awards

Jan. 2018 Dean's List Scholar

ACtivities

Sep. 2018 CIBC Machine Intelligence Hackaton (Github Link)
Finalist Group (Top 5)
During this Hackaton, each team has to come up with a solution to detect fraud in medical claims. My team presented a solution using an encoder-decoder architecture neural network to catch fraud in medical insurance claims. And our team was selected as a finalist group (the top 5 groups) based on our prediction accuracy and presentation.

Research Interests

Application of neural networks on economic topics
Applying the cutting-edge techniques from computer science and data science on economics-related topics. Deep neural networks helps us build more precise and powerful models to make forecasting on cross-sectional data.

Agent-Based Modelling
Modelling and simulate markets and the interaction of agents in the market using computer science techniques.

Languages

Mandarin:	Native
English:	Fluent

Skills

Programming-Python
I have been using Python since high school and I am familiar with python programming language and object-oriented programming. Familiar with python libraries including Numpy, Scipy, Pandas, Sklearn, Keras, Tensorflow, etc. as well as data visualization using libraries including matplotlib and bokeh.

Machine Learning & Neural Networks
Setting up neural network models and training sessions using TenserFlow, Keras libraries in python and Matlab.

Latex
I have been writing notes and short essays using Latex since high school and I am familiar with mathematical symbols and formatting tools in latex. During last semester, I took my notes during lecture using Latex directly.

Matlab
I have been programming in Matlab since high school. Actually, Matlab was my first language in programming. And I am comfortable implement methods in Matlab and reading Matlab script written by others.

Stata
I can use Stata to do data analysis including statistic summary, regression and graphic illustrations.

Wolfram Mathematica
I've been using Mathematica to assist my learning of mathematicssince high school. I can use Mathemaica to make graphic illustrations of functions and solve for analytical solutions to symbolic systems.

Linux&Bash
I am comfortable with manipulating files on linux server via command line using bash. Also, I am able to setup up Cloud servers on Amazon Web Service and train neural network on it.

Version Control using Git
I am comfortable to synchronize code and collaborating using Git and Github.

Certificates

Jun. 2018	Coursera - Practical Time Series Analysis
Apr. 2018	Coursera - Mathematics for Machine Learning: Multivariate Calculus
Mar. 2018	Coursera - Serverless Machine Learning with Tensorflow on Google Cloud Platform
Mar. 2018	Coursera - Sequence Models (Recurrent neural networks)
Jan. 2018	Coursera - Algorithmic Toolbox
Dec. 2017	Coursera - Social and Economic Networks: Models and Analysis
Dec. 2017	Coursera - Machine Learning