

Tianyu Du

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

PERSONAL INFORMATION

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EDUCATION

SEP. 2017 **University of Toronto**, Toronto, Canada
- PRESENT Honours Bachelor of Science (third year)
PROGRAMS TAKEN:
Economics & Mathematics Specialist
Computer Science Minor
CURRENT CGPA: 4.00/4.00
EXPECTED GRADUATE DATE: Apr. 2020
AWARDS:
Dean's List Scholar 2018

SEP. 2014 **Hangzhou Foreign Language School**, Hangzhou, China
- JUN. 2017 General Certificate of Education, A Level by Cambridge International Examinations
COURSES TAKEN: *Economics, Mathematics, Further Mathematics, Physics, English.*
Advanced Placement
EXAM TAKEN: *Microeconomics (Score: 5/5), Macroeconomics (Score: 5/5).*

ACTIVITIES AND PROJECTS

CURRENT. Term Paper: Returns to Higher Education as a Heterogeneous Treatment Effect
This is an empirical term paper focusing on measuring the monetary of higher educations. Unlike the other researches focusing on average treatment effect, in this paper, we applied various matching methods to estimate the individual level returns and analyzing factors affecting them.,

CURRENT. Artificial Neural Networks in Economic Forecasting (ANNEF) ([Github Link](#), [Documentation](#))
In this project, various neural networks, typically RNN, are deployed to perform forecasting tasks. And traditional time series analysis models are also implemented and compared with neural net based models.

FALL 2018 Home Credit Default Risk on Kaggle ([Github Link](#))
In this project, gradient boosting machines are built to perform binary classification task on loan default prediction.

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.

⁰This copy of resume is compiled on March 7, 2019.

SKILLS

- **Python** Building and training using `tensorflow` and `keras` python api. Handle dataset with `numpy`, `scipy` and `sklearn`. Visualization using `matplotlib` and `bokeh`.
- **Latex** Familiar with `latex` typeset including formatting and mathematical symbols.
- **Matlab** Data manipulation, setting up and training neural nets using `Matlab`.
- **Stata** Data navigation and regression analysis with `Stata`
- **Amazon Web Service** Setting up cloud server for neural net training and web hosting.
- **Wolfram Mathematica** Using `Mathematica` to Solve for analytical solutions to problems in Calculus and Optimization related subjects.
- **Linux&Bash** Manage files and run neural network training on linux-based servers.
- **Version Control using Git** Collaborating with contributors to the same project using `git`.