

# Yilun Zhang - Data Enthusiast

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<http://zhangyilun.github.io/>

*MMath Statistics, University of Waterloo*

## SUMMARY OF QUALIFICATIONS

- 2 years experience in data analysis, machine learning and data visualization
- Superior capacity to quickly understand and apply new concepts developed through academic and work experience in different industries
- Extensive knowledge and experience in Excel, Matlab, Python (numpy, scipy, sklearn, pyspark, tensorflow, keras), R and SAS
- Proficient in SQL languages and  $\text{\LaTeX}$ ; basic knowledge in Java and C++

## PROFESSIONAL EXPERIENCE

- May 2015 - Aug 2015 **Data Scientist (Intern)**, *Athos*, Redwood City, CA, USA.
- Assessed existing algorithm, then individually invented, implemented and tested a new algorithm to calculate the Athos Score (currently in production app)
  - Implemented the first machine learning algorithm to predict lower body heart rate confidence
  - Wrote Python and MySQL scripts to automate data cleaning, transfer and storage processes
  - Created sensor signal and other data visualizations for problem detection and algorithm improvement
- Sep 2014 - Dec 2014 **Insight Analyst (Intern)**, *MD Financial Management*, Ottawa, Canada.
- Conducted statistical analysis on a product pre-launch survey; designed and implemented predictive models to identify future product purchasers and a visualization application for the survey data using R with Shiny
  - Mined customer and survey databases to explore gender differences in investment behaviour
- Jan 2014 - May 2014 **Bioinformatics Data Analyst (Intern)**, *Princess Margaret Hospital*, Toronto, Canada.
- Implemented an experiment database using Python with SQLite3 which greatly improved efficiency for data standardization and sharing
  - Automated experimental data storage to portable SQLite3 database using Python and Excel
  - Applied mixed effect models and forecasting on a set of therapeutic experiment data using R; wrote a detailed statistical report in  $\text{\LaTeX}$
- Feb 2013 - Aug 2013 **Business Research Assistant (Intern)**, *Institute of System Science, NUS*, Singapore.
- Analyzed customer survey data using SPSS, R and Excel and produced visualization plots for presentation and final report to clients
  - Mined Singapore's transportation data for commuters' travel pattern analysis

## EDUCATION

- Sep 2016 - Aug 2017 **Master of Mathematics, Statistics**, *University of Waterloo*, Waterloo, Canada.
- Research: detail review of sentiment analysis literature; implemented semi-supervised machine learning method to classify the sentiment of survey final comments
- Sep 2011 - Apr 2016 **Bachelor of Mathematics, Statistics and Computational Mathematics Co-op**, *University of Waterloo*, Waterloo, Canada.
- Research: usage of interaction terms in Poisson regression models with particular attention to potential misconceptions within the sociology literature; conducted simulation study to illustrate proper usage of interaction terms in Poisson models in R
- Sep 2014 - Aug 2015 **Coursera & edX, Online Courses**, Remotely.
- Data Science Specialization | Machine Learning | Model Thinking | Data Visualization (Coursera)
  - Introduction to Big Data with Apache Spark | Scalable Machine Learning (edX)

## OTHER EXPERIENCE

- Apr 2017 - May 2017 **Top 10%, Team Leader, Int'l Data Mining Cup 2017 Representing UW**, *Remote*.
- May 2016 **Top Writer 2016 on Quora (I write about statistics, data science, etc.)**, *Quora*.
- Aug 2015 **1st Place, 6sense Data Hack**, *6sense*, San Francisco, CA, USA.
- Feb 2015 **1st Place, Capital One Data Mining Cup**, *University of Waterloo*, Waterloo, Canada.