# Rosie Zou

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## Education

**University of Waterloo**

Joint Honours Degree
B.CS + B.Math in Stats
Graduation: April 2019

## Skills

**Programming Languages**

Python, Java, C, C++, R,
Stata, SQL, VBScript

**Libraries & Frameworks**

WEKA, scikit-learn, pandas,
numpy, scipy, flask

**Foreign Languages**

Fluent Mandarin
Advanced French
Intermediate Japanese
Beginner Spanish

**Communication**

Business writing
Public speaking
Investor relations
Digital marketing

**Tools**

Sketch
Adobe InDesign

## Relevant Courses

Algorithms and Data Structure
Applied Linear Models
Introduction to Combinatorics
Logic and Computation
Mathematical Statistics
Object-Oriented Programming
Simulation of Complex Systems

## Experience

**Research Assistant,** University of Waterloo    May - Aug 2017

- Supervised by Prof. Matthias Schonlau, School of Actuarial Science
- Wrote a Stata plugin that implements all functions from the
  Random Forest class in the WEKA library, as a part of a 5-year
  NLP research project
- Plugin scheduled to release to all Stata users in late August
- Source code available upon request at
  https://git.uwaterloo.ca/schonlau/randomforest

**Equity Trading Intern,** TD Securities    Apr - Dec 2016

- Analyzed and visualized TD historic trades and order routing trends
- Researched various financial databases to compile market reports
- Regularly conducted research and data analysis used for marketing
- Re-worked latency calculation script used for performance analysis

**Associate Business Analyst,** Scotiabank    Sep - Dec 2015

- Performed daily QA and updated JIRA issue log for the team
- Tracked and examined project costs for resource misallocations
- Updated heat maps and configured access rights during UAT phase

## Projects

**Waterloop**    May 2017 - present

- University of Waterloo's competitive Hyperloop team
- Software systems developer, telemetry lead
- Designed and created mathematical models for navigation system
  using IMU, optical, and photoelectric distance sensors
- Designed and implemented raw data noise reduction models
  using support vector regression with radial basis function kernel
- Designed state diagram for the entire system, submitted to SpaceX
  for Phase II Competition
- Code available at github.com/teamwaterloop/sensors

**Hackathon Projects**    Sep 2015 - Oct 2016

- 7 hackathons where I designed and implemented ML algorithms
- Project areas range from mobile/web app developemnt to
  hardware and augmented reality
- Awards and recognitions include : Top 10 at HackMIT, Best Use of
  Data Visualization at DubHacks, and Capital One prize at Mhacks
- Details at devpost.com/rosiezou and rosiezou.com