# Rosie Zou

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## Education

### University of Waterloo

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

## Skills

### Programming

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 distributed to all Stata users on www.schonlau.net/stata/
- 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
- Co-designed state diagram for the entire system, submitted to SpaceX for Phase II Competition
- Code available at github.com/teamwaterloop/data-processing

**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