

# Zachary Hervieux-Moore

## Contact

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## Skills

### Programming:

C, Python, Ruby, MATLAB

### Web Development:

HTML5, CSS3, JavaScript, SQL

### Web Frameworks:

Django, Ruby on Rails, Bootstrap

### Software:

Git, Perforce, Puppet, LaTeX

### Languages:

English, French

## Awards

- The Gordon B. and Nancy R. Stewart, Jr. Fellowship
- Dean's Scholar x 4
- Nellie & Ralph Jeffery Award in Mathematics x 2
- Edith Whyte Prize in Macroeconomics Theory
- The Annie Bentley Lillie Prize in Calculus
- Queen's Principal's Scholarship
- Governor General's Award

## Extracurriculars

- Teach math to inmates through the Prison Teaching Initiative
- Bartender at the Graduate Student Bar
- Regularly attend hackathon and startup competitions.
- Cofounded Queen's Code the Change which connects programmers with charities to provide pro bono programming during a one day event.

## Profile

Proficient in many areas of advanced mathematics and electrical engineering such as signal processing, control theory, and statistical modeling. Keen interest in computer science and constantly keeping my skills at the bleeding edge. Whether it is a new web framework or a new efficient algorithm, I stay on top of the field. Continuously looking to apply my knowledge to the fields of economics and finance. Current focus of research is optimization theory and its intersection with computer science.

## Education

**Princeton University, Princeton, NJ** 2016-present  
–PhD Candidate in Operations Research and Financial Engineering

**Queen's University, Kingston, ON** 2011-2016  
–Bachelor of Science Engineering, Mathematics and Engineering, Systems and Robotics Option  
–Bachelor of Arts, Economics

## Experience

**Altera Corp. (now Intel PSG), San Jose, CA** 2014-2015  
**Software/Hardware Engineer Intern**

- Maintained and improved internal test infrastructure.
- Regularly coded Perl firmware and Django web applications. Automated the deployment of infrastructure using Puppet.
- Modernized the test infrastructure by upgrading the OS and refactoring code to utilize the latest stable release of various software packages.

**Queen's University, Kingston, ON** 2011-2016  
**Relevant Coursework**

- Design project titled "Region Tracking in a Sequence of Images". Applied calculus of variations in order to achieve this. Developed an application that successfully tracked the hand of a user from a webcam video and the outline of a bone throughout an MRI scan.
- Course project titled "Applying Q-Learning to Flappy Bird". Achieved human-level performance by applying a reinforcement learning algorithm to the game Flappy Bird. Simulated the game and coded the algorithm in MATLAB.

### Teaching Assistant

- Was a project manager for APSC 202. Involved teaching the engineering process to transfer students. Project was to create an Android application for a school design team.
- Taught a tutorial for Calculus II (APSC 172) and Linear Algebra (APSC 174) to first year engineers.
- Created a review packet for Calculus I (APSC 171) and gave a three hour crash course during the exam period.