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
- Manager at the Graduate Bar
- Treasurer of the Graduate Student Government
- 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

- Linear & Nonlinear Optimization
- Statistical Theory and Methods
- Probability Theory
- Advanced Algorithm Design
- Computational Finance in C++
- Convex & Conic Optimization
- Statistical Learning & Nonparametric Estimation
- Stochastic Calculus

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

Experience

Siemens Healthineers, Princeton, NJ Summer 2017
Business Program Intern
—Responsible for the formulation and development of the underlying algorithm used in a scheduling application.
—Programmed in Python using Pandas to manipulate the data and CPLEX to model and solve the optimization problem.
—Researched deep learning and reinforcement learning to create a novel scheduling algorithm.

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 succesfully 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.