

David Rushing Dewhurst

7 Hildred Drive, Burlington, VT 05401

📞 (508) 944-2116 • ✉ david.dewhurst@uvm.edu • 🌐 daviddewhurst.github.io

Professional Experience

- **MITRE Corporation** **Burlington, VT**
Computer science graduate fellow *June 2017 - present*
Use machine learning and nonparametric statistics to analyze petabyte-level financial transaction data
 - Design and implement algorithms to quantify effects of high-frequency trading
 - Use industry-standard tools (e.g. Spark, pandas) to process data and extract actionable insights
- **Research and Development, LLC** **Burlington, VT**
Co-founder *August 2016-present, currently on sabbatical*
Run company specializing in data and complex systems consulting, methodology, and software.
 - Developed proprietary options trading strategies using evolutionary computation
- **Tax Foundation** **Washington, DC**
Taxes and growth fellow *June 2015 - August 2015*
Analyzed federal and international tax policy, and provided policy recommendations to senior policymakers.
 - Used computational partial equilibrium models to predict effects of changes in tax policy on the U.S. economy,
- **Cato Institute** **Washington, DC**
Financial regulation intern *September 2014 - December 2014*
Acted as research assistant to banking and securities regulation scholars.
- **Massachusetts Senate** **Boston, MA**
Summer legislative correspondent *May 2014 - August 2014*
Facilitated communication between Senator Marc Pacheco, industry representatives, and constituents.

Education

- **University of Vermont** **Burlington, VT**
M.S. Mathematics (GPA 4.0) *2016–2018 (expected)*
 - Supported by graduate teaching assistantship, currently teaching Calculus I.
 - Publish research papers in top-tier journals (e.g., Physical Review E)
 - Develop software for use on high-performance computing cluster (Vermont Advanced Computing Core, AWS)
- **Mathematical Sciences Research Institute / Université de Montréal** **Montréal, PQ**
Séminaire de mathématiques supérieures - contemporary dynamical systems *July 2017*
 - Full scholarship and housing support from MSRI
- **University of Vermont** **Burlington, VT**
B.A. Economics, Mathematics, and Political Science (GPA 3.3) *2011–2016*
 - Omicron Delta Epsilon — economics international honor society

Technical Skills

- **Programming Languages:** Python, Matlab/Octave, L^AT_EX, Bash
- **Operating Systems:** GNU Linux, RHEL, Windows
- **Software Tools:** Git, PBS, Mathematica, Spark

Volunteering and personal activities

- Volunteer for hometown community organization, teaching 5th-8th graders the basics of strength training
- Consult on strength training, athletic performance, and dietary matters for amateur athletes