# Timothy R. McDade

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Website: https://trmcdade.github.io/ GitHub: https://github.com/trmcdade

Education

PhD: Duke University

2018 -

2018 -

Political Science: Political Economy, Quantitative Methods

All but dissertation, expected graduation May 2022.

Committee: Erik Wibbels (chair), Michael Munger, Layna Mosley, Scott de Marchi.

MA: Duke University

Political Science: Political Economy, Quantitative Methods

Expected graduation December 2021.

BS, Honors: The College of William & Mary 2012 Mathematics, Chinese Language & Literature

Tsinghua University 2010

Coursework in Chinese Language and Culture

Work **Experience**  Duke University: Durham, NC, USA

2018 -

Research Associate, DevLab@Duke, Machine Learning for Peace

- 8/2018 8/2021
- Scraped international media sources to construct an event data set as input to a natural language processing algorithm that predicts democratic backsliding, civil society closures, and authoritarian influence across the world.
- Constructed data set of economic indicators for inclusion in event prediction model.
- Managed undergraduate research assistants.

Microsoft: Beijing, China and Redmond, WA, USA

2012 - 2018

Data Scientist, Microsoft Azure Business Analytics

2014 - 2018

- Led market analytics for China Azure.
- Relocated to Beijing in August 2016 to provide deeper in-country context, make specific recommendations based on the geopolitical climate, and improve the relationship between the Chinese and USA Azure teams.
- Built analytical tools to inform executive decisions in these key areas:
  - Strategy to improve market standing as a foreign company in China: advocated the improvement of web direct business (B2C) to capitalize on the scalable nature of cloud computing.
  - Price changes based on data from competitive analyses and price elasticity calcu-
  - Mitigation of data center capacity constraints based upon analysis of customer usage trends.
  - More effective marketing campaigns via lifetime value analysis and cost-per-trial conversion analysis.
  - Introduction of machine learning models to reduce customer churn and identify top tier customers.
- Delivered data-driven and market-based insights that influenced business decisions leading to 731% growth in Microsoft Azure China's monthly revenue over 27 months.
- Led a team of four on-site and offshore contractors.

	Program Manager, MACH IT Rotation Program  Delivered four external consulting contracts for \$337,500 revenue.
	The College of William & Mary: Williamsburg, VA, USA  Researcher, Computational Science in the Mathematical Sciences  Researcher, W&M Global Business Immersion  2011 – 2012 2011 – 2012
Publications	Timothy R. McDade. What can insurance tell us about the capitol mob? Foreign Policy January 2021 (link here).
	Timothy R. McDade. Who's surprised by gamestop? not me!, February 2021 (link here).
Working Papers	Timothy R. McDade. Dissertation, Part I: Economic Insurance and Protest Mobilization, 2021
	Timothy R. McDade. Dissertation, Part II: The Effect of Ownership Concentration on Government Bond Yields, 2021
	Timothy R. McDade. Dissertation, Part III: China's Financial Market Statecraft, 2021
	Timothy R. McDade. Multilateral constraints on chinese behavior in south china sea territoria disputes. <i>Duke Global Working Paper Series</i> , (19), March 2020 (link here or here).
	Timothy R. McDade, Layna Mosley, and B Peter Rosendorff. Political shocks and sovereign borrowing, 2021
	Timothy R. McDade, Mateo Villamizar Chaparro, Molly Jacobs, and Michelle Corea. The effect of covid-19 and economic stimulus on food security, 2021
	Timothy R. McDade. Analysis and simulation of an optimal control model of an oyster population displaying an allee effect. <i>Undergraduate Honors Theses, William &amp; Mary</i> , (499) 2012
Languages	Mandarin Chinese (advanced) Spanish (advanced reading, intermediate speaking)
Skills	Technical skills:  - Python, R, SQL, Bloomberg, FactSet, Stata, Matlab, Unix/Bash, Git, LaTeX, MS Office - Quantitative analysis, time series analysis, advanced regression and statistics, financia

analysis, forecasting, machine learning, factor analysis, natural language processing,

Business skills:

data management

- Synthesize, organize, and evaluate huge amounts of data and evidence both quantitative and qualitative, from academic, technical, business, and strategic sources, to recommend action to varied stakeholders.
- Firm grasp of how politics affects economics (and vice versa) at the global, state, and firm level.
- Detail-oriented, but able to connect to the bigger picture.
- Project and people management.
- Use evidence to advocate a position or strategy.
- Construct evidence-based theories of change.

# Honors, Distinctions, and Awards

### **Duke University**

- Walter T. Molano Research Grant (\$1,500): 2022.
- Bradley Foundation Grant Funding (\$7,000): 2021.
- Walter T. Molano Research Grant (\$3,000): 2021.
- Departmental Fellowship, Department of Political Science: 2018, 2019, 2020, 2021.
- Summer Research Fellowship, Duke Graduate School: 2019, 2020.
- Summer Research Fellowship, Department of Political Science: 2021.
- Russell Sage Foundation and Alfred P. Sloan Foundation: Summer Institute in Computational Social Science: 2019.

### The College of William & Mary

- Monroe Scholar: ranked in the top 5% of Class of 2012 admitted students. Awarded summer research fellowship (\$3,000).
- Dean's List: Fall 2011 & Spring 2012.

# Invited **Presentations**

February 2020: UT Austin, Restraint and National Security Conference

Departmental
Service

#### **Duke University**

Teaching Assistant, Professor Alexander Rosenberg	2021
Research Assistant, Professor Michael Munger	2021 -

Research Assistant, Professor Michael Munger	2021 -
Research Assistant, Professor Erik Wibbels	2019 - 2021
Research Assistant, Professor Scott de Marchi	2018 - 2019

## **Teaching**

Thesis Writing for MA Students (PS 791) Introduction to Political Economy (PS 145)

Teaching Assistant, Professor Michael Munger

Fall 2021 Fall 2020

2020 - 2021

## **Professional Affiliations**

American Political Science Association International Studies Association