### Timothy R. McDade

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

Education	PhD: Duke University Political Science: Political Economy, Quantitative Methods Committee: Erik Wibbels (chair), Scott de Marchi, Michael Munger, Layna Mosley	2022
	AM: Duke University Political Science: Political Economy, Quantitative Methods	2021
	BS, Honors: The College of William & Mary Mathematics, Chinese Language & Literature	2012
	Tsinghua University Coursework in Chinese Language and Culture	2010

# Work Experience

Duke University: Durham, NC, USA

2018 - 2022

Research Associate, DevLab@Duke, Machine Learning for Peace

2018 - 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

Data Scientist, Microsoft Azure Business Analytics

2012 - 2018

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 calculations.
  - 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

2012 - 2014

Delivered four external consulting contracts for \$337,500 revenue.

The College of William & Mary: Williamsburg, VA, USA	2011 - 2012
Researcher, Computational Science in the Mathematical Sciences	2011 - 2012
Researcher, W&M Global Business Immersion	2011 - 2012

### **Skills**

#### Technical skills:

- Python, R, SQL, Stata, Matlab, Unix/Bash, Git, LaTeX, Microsoft Office, and more
- Familiar with a broad variety of data sources, including Bloomberg, FactSet, and more
- Comfortable with a variety of databases including MongoDB and Azure SQLDB
- Strong knowledge of probability, statistics, and quantitative analysis, including time series analysis, advanced regression and statistics, financial analysis, forecasting, machine learning, factor analysis, natural language processing, and data management

#### Business skills:

- 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.
- Constructing evidence-based theories of change and advocating a position or strategy.
- Detail-oriented, but able to connect to the bigger picture.
- Project and people management.

### Languages

Mandarin Chinese (advanced)

Spanish (advanced reading, intermediate speaking)

# Peer Reviewed Publications

Timothy R. McDade, Mateo Villamizar Chaparro, Molly Jacobs, and Michelle Corea. The effect of covid-19 and economic stimulus on food security. *Journal of Racial and Ethnic Health Disparities*, 2022 (link here).

# Working Papers

Timothy R. McDade. Dissertation, Part I: Economic Insurance and Protest Mobilization, 2022 (link here).

Timothy R. McDade. Dissertation, Part II: The Effect of Ownership Concentration on Government Bond Yields, 2022 (link here).

Timothy R. McDade. Dissertation, Part III: China's Financial Market Statecraft, 2022 (link here).

Timothy R. McDade, Layna Mosley, and B Peter Rosendorff. Political shocks and sovereign borrowing. *Working Paper*, 2022

Timothy R. McDade. On survey experiments. Working Paper, 2020 (link here).

Timothy R. McDade. Firm responses to shocks: Reallocation of capital contingent upon property rights. *Working Paper*, 2020 (link here).

Timothy R. McDade. Multilateral constraints on chinese behavior in south china sea territorial disputes. *Duke Global Working Paper Series*, (19), March 2020 (link here).

Timothy R. McDade. Analysis and simulation of an optimal control model of an oyster population displaying an allee effect. *Undergraduate Honors Theses*, *William & Mary*, (499), 2012 (link here).

### **Other 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).

## Honors, Distinctions, and Awards

### **Duke University**

- Walter T. Molano Research Grant (\$2,000): 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

# **Consulting Experience**

## World Bank, Washington D.C., USA

Consultant

2022 2022

 Produced reports analyzing data from surveys conducted in Tajikistan, Kyrgyz Republic, and Uzbekistan.

# Departmental Service

### **Duke University**

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Teaching Assistant, Professor Peter Feaver	2022
Teaching Assistant, Professor Alexander Rosenberg	2021
Teaching Assistant, Professor Michael Munger	2020 - 2021
Research Assistant, Professor Michael Munger	2021 - 2022
Research Assistant, Professor Erik Wibbels	2019 - 2021
Research Assistant, Professor Scott de Marchi	2018 - 2019

Teaching	Foreign Policy of the US (PS 365) Thesis Writing for MA Students (PS 791) Introduction to Political Economy (PS 145)	Spring 2022 Fall 2021 Fall 2020
Professional Affiliations	American Political Science Association International Studies Association	
Professional Service	Reviewer, Economics & Politics	