Timothy R. McDade

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

Education	PhD: Duke University	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	2018 –
	Political Science. Expected graduation Fall 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 – 2021
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 — 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 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   2010 – 2012
    Researcher, Computational Science in the Mathematical Sciences   2011 – 2012
    Researcher, W&M Global Business Immersion   2010 – 2011

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 territorial disputes. *Duke Global Working Paper Series*, (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. *Undergraduate Honors Theses, William & Mary*, (499), 2012

Languages

Mandarin Chinese (advanced)
Spanish (advanced reading, intermediate speaking)

Skills

Technical skills:
- Python, R, SQL, Unix/Bash, Git, Stata, Matlab, Bloomberg, FactSet, LaTeX, MS Office
- Quantitative analysis, time series analysis, advanced regression and statistics, financial analysis, forecasting, machine learning, factor analysis, natural language processing, data management

Business skills:

- Synthesis of academic, technical, business, and strategic material to recommend action to varied groups of stakeholders.
- Synthesize, organize, and evaluate huge amounts of data and evidence — both quantitative and qualitative.
- 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 Michael Munger	2020 – 2021
	Teaching Assistant, Professor Alexander Rosenberg	2021
	Research Assistant, Professor Erik Wibbels	2019 – 2021
	Research Assistant, Professor Scott de Marchi	2018 – 2019

Teaching	Thesis Writing for MA Students (PS 791)	Fall 2021
	Introduction to Political Economy (PS 145)	Fall 2020

Professional Affiliations	American Political Science Association
	International Studies Association