Timothy R. McDade

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

Education	PhD program: Duke University	2018 –
	Political Science: Political Economy, Quantitative Methods	
	Passed qualifying and preliminary examinations	
	Expected graduation May 2022.	
	MA: Duke University	2018 –
	Political Science. Expected, Fall 2021	
	BS, Honors: The College of William & Mary	2012
	Mathematics and Chinese Language & Literature	
	Tsinghua University	2010
	Coursework in Chinese Language and Culture	

**Work
Experience**

DevLab@Duke: Durham, NC, USA — 2018 –
Research Associate, Machine Learning for Peace — 2018 –
- Scraped international media sources to construct an event data set as input to a natural language processing algorithm that predicts democratic backsliding, civil space 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 contracts resulting in $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. 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. Economic determinants of protest, 2021

Timothy R. McDade. Ownership concentration of government bond markets, 2021

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

Languages

Mandarin Chinese (advanced), Spanish (advanced)

Skills

Technical skills:
- Python, R, SQL, Unix/Bash, Git, Stata, Matlab, LaTeX
- 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

- 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

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Departmental Service

Duke University

Research Assistant, Professor Scott de Marchi	2018 – 2019
Research Assistant, Professor Erik Wibbels	2019 – 2021
Teaching Assistant, Professor Michael Munger	2020 – 2021
Teaching Assistant, Professor Alexander Rosenberg	2021

Teaching

Political Science 145: Introduction to Political Economy (Fall 2020)

Professional Affiliations

American Political Science Association
International Studies Association