Timothy R. McDade

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Durham, NC, USA

Education

PhD program: Duke University   2018 –
    Political Science: Political Economy, Quantitative Methods

BS, Honors: The College of William & Mary   2008 – 2012
    Mathematics and Chinese Language & Literature

Tsinghua University   2010
    Coursework in Chinese Language and Culture

Work Experience

DevLab@Duke, Duke University
Research Associate, Machine Learning for Peace   2018 –
- Scrape 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

Honors, Distinctions, and Awards	Duke University
	- Summer Institute in Computational Social Science, Russell Sage Foundation and Alfred P. Sloan Foundation. June 2019.
	- Departmental Fellowship, Department of Political Science: 2018, 2019, 2020.

The College of William & Mary
- Monroe Scholar: ranked in the top 5% of Class of 2012 admitted students. Awarded funding for summer research.
- Dean's List: Fall 2011 & Spring 2012.

Languages   Mandarin Chinese (advanced), Spanish (advanced)

Skills

Technical skills:
- Python, R, SQL, GitHub, Stata, Matlab, LaTeX
- Quantitative analysis, time series analysis, advanced regression and statistics, 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.

Working Papers

McDade, Timothy, Multilateral Constraints on Chinese Behavior in South China Sea Territorial Disputes (March 10, 2020). Duke Global Working Paper Series No. 19. Available at SSRN: https://ssrn.com/abstract=3552183 or http://dx.doi.org/10.2139/ssrn.3552183

Economic Determinants of Protest

Ownership Concentration of Government Bond Markets

Debt Issuances and Elections (with Layna Mosley and B. Peter Rosendorff)

The Effect of COVID-19 and Economic Stimulus on Food Security (with Molly Jacobs, Mateo Villamizar Chaparro, and Michelle Corea)

Invited Presentations

February 2020: UT Austin, Restraint and National Security Conference

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

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