

# Thomas J. Weinandy, Ph.D.

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## SUMMARY

Dr. Thomas Weinandy is an applied economist conducting research on a mobile two-sided promotions market. He specializes in business economics and digital economics, particularly in managing complex and big data sets. His professional work discovers insights on consumer behavior at brick-and-mortar retail amid macroeconomic trends. Dr. Weinandy also performs pro bono consulting on nonprofit program evaluation.

## EDUCATION

**Doctorate in Applied Economics** Cumulative GPA 3.8/4.0  
*Western Michigan University* Graduated May 2021

- Specializations: Econometrics, Applied Microeconomics
- Dissertation: Applied Microeconomics & Business Intelligence in the Digital Age

**Masters in Applied Economics** Cumulative GPA 3.8/4.0  
*Western Michigan University* Graduated December 2017

**Master of Business Administration** Cumulative GPA 3.9/4.0  
*Wheeling Jesuit University* Graduated May 2014

**B.A. Spanish, Social Entrepreneurship** Majors GPA 3.7/4.0  
*John Carroll University* Graduated (with honors) May 2011

## CERTIFICATIONS

**100 Days of Code: The Complete Python Bootcamp**  
*Udemy* Completed October 2022

**Specialization Certificate in Applied Data Science with Python**  
*University of Michigan* Completed December 2018

## SELECT GRADUATE COURSEWORK

Quantitative Business Analysis, Managerial Accounting, Managerial Finance, Economic Statistics, Introduction to Econometrics, Advanced Econometrics I (Panel Data), Advanced Econometrics II (Time Series), Applied Data Mining, Machine Learning, Text Mining, Social Network Analysis, Big Data Analytics

## CURRENT TECHNOLOGY STACK

**Programming Languages:** Python, PySpark, R, SQL  
**AI/ML:** Azure Machine Learning, Databricks, Microsoft AI Services  
**Data Visualization:** Power BI, Looker, Matplotlib/Seaborn/Plotly  
**Miscellaneous:** Snowflake, Hex, Jira (Kanban), GitHub

## EXPERIENCE

### Senior Research Economist

**Upside**

*Washington DC*

*September 2022-Present*

- Identify insights about users and merchants on a two-sided promotions market for gas, convenience, restaurant, and grocery retail.
- Create thought leadership pieces from internal and external data sources.
- Monitor macroeconomic conditions, synthesize for company communication.
- Speak publicly on behalf of the company about consumer behavior and industry trends.

### Sabbatical

*May 2022-August 2022*

- Completed [github.com/tomweinandy/100DaysOfCode](https://github.com/tomweinandy/100DaysOfCode) in Python
- Submitted two research papers to academic journals

### Economist

**Foundry Brands**

*Dallas, TX*

*January 2022-April 2022*

- Helped the 10-month-old startup establish a Data Science Team.
- Built a pipeline from data lake into Python environment for local development and automated analysis with most-recent data.
- Built algorithm to match organic keyword searches with branded retailers.

### Senior Data Scientist

**BlueGranite**

*Portage, MI*

*March 2020-December 2021*

- Built and implemented machine learning models using Microsoft technologies.
- Provided advanced analytics consulting for clients in the areas of retail, financial services, and health care.
- Directed internal AI strategy for four-person team of Data Scientists.
- Ran three webinar trainings on leveraging AI for: Azure Machine Learning, Power BI, AI Business Strategy.

### Teaching Assistant / Part-Time Instructor

**Western Michigan University**

*Department of Economics*

*Aug. 2016-May 2020 / Sept.-Dec. 2021*

- Course taught: Principles of Microeconomics
- Assisted faculty with economic research projects and coursework.
- Courses assisted: Exploring Economic Data, Intermediate Microeconomics, Principles of Macroeconomics, Women, and the Economy

### Adjunct Professor

**Wheeling Jesuit University**

*Department of Business*

*August 2014-May 2016*

- Courses taught: Quantitative Business Analysis, First Year Seminar, Emerging Leadership

## EXPERIENCE

(continued)

### Co-Organizer

*International Conference of Crisis Mappers*

### Crisis Mappers Network

*October 2013-October 2016*

- Annual humanitarian technology conferences with 180-350 attendees, \$150,000+ budget, held between three continents. Primary hosting organizations included the United Nations, Google, and Map the Philippines.
- Planned virtually on a geographically dispersed team of four organizers.

### AmeriCorps/Graduate Assistant

*Service for Social Action Center*

### Wheeling Jesuit University

*August 2011-July 2016*

- Program evaluation and implementation for college students on issues of hunger, incarceration, youth development, and energy solutions.
- Partnered with local and regional nonprofits to coordinate one-time, ongoing, and week-long service learning opportunities.

### Community Resource Coordinator

*Hope Prep Program*

### Boys Hope Girls Hope NE Ohio

*June 2010-July 2011*

- Teacher for academic summer camp for kids from low-income backgrounds.
- Expanded programming from five weeks to year-round with school visits.

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## PUBLICATIONS

Stirrup, J., & **Weinandy, T. J.** (2024). Artificial Intelligence with Microsoft Power BI: Simpler AI for the Enterprise. *O'Reilly Media*. <https://bit.ly/aiwithpowerbi>

Esguerra, A., & **Weinandy, T. J.** (2024). "Factors Predicting Access to Medications for Opioid Use Disorder for Housed and Unhoused Patients: a Machine Learning Approach" *PLOS ONE*.

**Weinandy, T. J.**, Chen, K., Pozo, S., & Ryan, M. J. (2023). Twitter-patter: how social media drives foot traffic to retail stores. *Journal of Marketing Analytics*, 1-19.

**Weinandy, T. J.**, & Ryan, M. J. (2021). Flexible Ubers and fixed taxis: The effect of fuel prices on car services. *Journal of Industry, Competition and Trade*, 21(2), 139-168. <https://rdcu.be/cc8eC>.

- Winner Best Graduate Economics Paper, *Ohio Association of Economists and Political Scientists*, Annual Meeting, Cleveland, OH, September 2019.

**Weinandy, T. J.** (2016). Volunteer and technical communities in humanitarian response: lessons in digital humanitarianism from Typhoon Haiyan. *UN Chronicle*, 53(1), 29-30.

## SELECT PROJECTS

“Building a Twitter bot in Python to write bigram poems,” Blog post on dev.to, August 2, 2019. <http://bit.ly/bigrapoetry>

“Evaluating Collinear Economic Variables with Machine Learning: A Case Study on Retail Visits and Tax Returns”

## PRESENTATIONS

“From Trends to Transactions: What’s Fueling (or Stalling) Customer Loyalty” *Outlook Leadership Conference*, Palos Verdes, CA, August 2025

“Missed Connections: The High Cost of Overlooking Shoppers” *GroceryTech*, Dallas, TX, June 2025

[Keynote] “U.S. Economic Outlook for 2025 and Beyond” *NACS State of the Industry Summit*, Dallas, TX, April 2024

[Interview] “Amid inflation, consumers are committed to discounts, not brands” *The Today Show*, New York, NY, August 2024 [bit.ly/today\\_show\\_cross\\_shopping](http://bit.ly/today_show_cross_shopping)

“The Consumer Decisions Behind Spending” *Outlook Leadership Conference*, Palos Verdes, CA, August 2024

“The Macroeconomic Trends Behind Consumer Behavior” *Western Michigan U. Dept. of Economics Seminar*, Kalamazoo, MI, October 2023

“Defining Indicators for Success in a Digital World” *Outlook Leadership Conference*, Palos Verdes, CA, August 2023

[Keynote Speaker] “An economist walks into a bar...: The current headwinds and tailwinds affecting small businesses” *Great Lakes Ice Cream and Fast Food Association Trade Show*, Battle Creek, MI, February 2023.

[Keynote Speaker] “Business in the Digital Age” *International Conference on Innovative Trends in Business and Technology*, Virtual/Lahore, Pakistan, October 2022.

“Twitter-Patter: How Social Media Drives Retail Foot Traffic”

- *Placekey Seminar Series*, Virtual, May 2021
- *Big Data Ignite*, Virtual, October 2021

“Evaluating Collinear Economic Variables with Machine Learning: A Case Study on Retail Visits and Tax Returns” *Midwest Regional Graduate Symposium*, Virtual/Toledo, OH, April 2021.

- *2<sup>nd</sup> place Best Graduate Presentation.*

“The Peanut Butter Problem: Building an Out of Stock Product Recommender” *Big Data Ignite*, Virtual/Grand Rapids, MI, October 2020.

“Big Data Hubris: Limitations in Aggregating Uber and Google Data.” *Data Science & Analytics West Michigan*, Grand Rapids, MI, March 2020.

“Economic Lessons from the #ChickenSandwichWars.” *Three Minute Thesis Competition—Western Michigan University*, Kalamazoo, MI, February 2020.

- WMU 1<sup>st</sup> place winner, voted People’s Choice. Finalist at regional competition.

[Keynote Speaker] “Is a Recession Coming? The Good, the Bad and the Ugly of Economic Trends.” *Great Lakes Ice Cream and Fast Food Association Trade Show*, Battle Creek, MI, February 2020.

“Predicting Brand Sales with Twitter Text Analysis.” *International Conference on Big Data Analytics and Data Science*, Las Vegas, NV, November 2019.

“Flexible Ubers and Fixed Taxis: The Effect of Fuel Prices on Car Services.”

- *Midwest Economic Association*, St. Louis, MO, March 2019.
- *Ohio Association for Economics and Political Scientists Annual Meeting*, Cleveland, OH, September 2019.
- *Grand Valley State University Seminar*, Grand Rapids, MI, November 2019.

“Appalachia: Overview of the Region and Economy.” *Ignatian Family Teach-in for Justice*, Washington DC, November 2012.

“The Impact of Domestic and International Immersion Experiences on Students.” *Wheeling Jesuit University Research and Scholarship Symposium*, Wheeling, WV, April 2012.

“Crisis Mapping: Conflict and Disaster Response in the Digital Age.” *John Carroll University Celebration of Scholarship*, Cleveland, OH, April 2011.

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## LANGUAGE SKILLS

Spanish (working proficiency): undergraduate major; semester abroad in Madrid, Spain; six cumulative weeks of travel between El Salvador, Guatemala, and Mexico.

## PROFESSIONAL MEMBERSHIP

National Association of Business Economists, Midwest Economic Association, Data Science and Analytics West Michigan

## ACADEMIC REFEREEING

Journal of Marketing Analytics

## CONSULTING

Data Strategy and Analysis; International Samaritan; Ann Arbor, Michigan (2025-Present)

Steering Committee, Program Committee, Fundraising Committee; Big Data Ignite conference; Grand Rapids, Michigan (2019-2023).

Financial Advisory Committee, St. Thomas More Catholic Church, Kalamazoo, Michigan (2017-2022).

Literature Review Committee, International Samaritan, Ann Arbor, MI (2021).

Feasibility Study for a Social Enterprise Bakery with Catholic Charities, West Virginia (2014).

“Prophetic Philanthropy: Building a Model to Predict Chapel Donations at a Small, Catholic, University” (2013).

Evaluation of a leadership training program for the Minneapolis-based nonprofit Students Today Leaders Forever (2011).