David Terner

Contact Information

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Professional Summary

- Strong quantitative modeling skills and ability to apply statistical/machine learning and econometric design methods to big data sets obtained from government, industry, and public sources (online data scraping), to solve business problems, and to translate those data-driven findings into actionable insights.
- Strong oral and written communication skills, including reports and presentations using visualization of both qualitative and quantitative complex data relationships and outcomes for diverse audiences, developed through numerous presentations at professional economics conferences and consulting positions.
- Track record of utilizing appropriate state-of-the-art, cutting-edge econometric models in analytical software environments to analyze market/economic dynamics, to conduct counter-factual analysis and predictions, and to critically test and evaluate technical details and overall explanatory power of competing models.

RESEARCH FIELDS

Primary: International Trade, Shipping Economics, and Industrial Organization

Secondary: Networks and Computational Economics

EDUCATION

Indiana University, Bloomington, Indiana USA

Ph.D. Economics and Complex Systems and Networks Science (Expected May 2023)

M.A. Economics, January 2019

SUNY Geneseo, Geneseo, New York USA

B.A. Economics and B.A. Mathematics, May 2017

3.79/4.0 GPA

London School of Economics, London, England, UK

General Course, Fall 2015-Spring 2016

4.0/4.0 GPA

Honors and Awards Indiana University: Best Third Year Paper, 2020. W. Phillip Saunders Award: Best introductory economics graduate instructor, 2020. Tobias Center Research Grant, 2020. Affiliate Fellow of Complex Networks and Systems National Science Foundation Research Program, 2019-Present.

SUNY Geneseo: Graduated Phi Beta Kappa and *Magna Cum Laude*. Golden Key, Phi Eta Sigma Honor Societies. Dean's List all semesters.

Programming

R, Python, QGIS, MATLAB, Excel (VBA), Stata, FORTRAN, LATEX, Microsoft Office

Professional Experience

Marsoft Incorporated, Boston, Massachusetts USA

Summer Associate

Full Time, Summers 2020-2021

- Executed independent project to refine forecasting models to support investment, chartering, and financing decisions for spot earnings, time charter rates, and vessel valuations. Integrated analysis of macroeconomic market fundamentals with substantial maritime industry data within an adaptive, statistical learning, time series-regression modeling framework.
- Presented forecasting innovations and statistical quality assessment of various econometric models to President and senior leaders with interactive (HTML based) visualizations of key results.
- Created automatic generation and documentation of model diagnostics and essential replication details to feed into subsequent iterations of model building for future use by internal analysts.

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Center for Government Research, Rochester, New York USA

Research Associate Full Time, Summer 2017

- Provided economic narrative based on socioeconomic/ fiscal impact analyses and visualizations for Chautauqua County's Municipal Consolidation and Efficiency Competition (MCEC) application for New York State through quantitative analysis of county tax, property values, and US Census data.
- Performed comparative analyses of municipal lead-paint policy implementation, extent of regulatory impact and enforcement, and outcomes.
- Contributed expertise to company projects needing economic/fiscal impact assessment using InformANA-LYTICS, a cost-benefit analysis tool for industrial development agencies.

WORKING PAPERS

Off course? Knot anymore. Cost efficiencies and the Panama Canal Expansion (Job Market Paper).

Contribution: Analyzed impact of the 2016 Panama Canal's expansion on routing and volume dynamics of US imports. Leveraging shipping micro-data within an event study framework, I find that: (i) the expansion led to 8.2% increase in import volumes; (ii) approximately 65% of the volume effect is driven by the use of larger ships; (iii) product level heterogeneity in time-sensitivity is a significant predictor of importing firms route switching; and, (iv) the majority of total cost savings accrue to Midwestern metropolitan areas.

<u>Presented</u>: Indiana-Purdue Trade Conference (first place award competition), Southern Economics Association Meetings (2020), Indiana Trade Seminar (2020), Indiana Microeconomics Seminar (2020).

Fathoming Shipping Costs: An Exploration of Recent Literature, Data, and Patterns. World Bank Transport Flagship Report "Shrinking Economic Distance" (Forthcoming, with Adina Ardelean, Volodymyr Lugovskyy, and Alexandre Skiba)

<u>Contribution</u>: Assessed literature estimates of freight cost determinants via quantitative meta-analysis. Conducted within freight-industry comparison of developments in fuel efficiency; investigated temporal-spatial analysis of drybulk shipping spot rates; and, estimated freight cost distance elasticity time-series of US imports.

Presented: World Bank Transport Group's Virtual Authors' Workshop (2022).

Shipping Towards Green Horizons (with Volodymyr Lugovskyy and Ahmad Lashkaripour)

<u>Contribution</u>: Estimated long-run oil shock pass through rates for U.S. imports by transport mode and as function of market structure. I model import demand for U.S. firms and capture mode switching dynamics driven by cross price and time sensitivity. I simulate the effect of reducing containership speed and imposing a carbon tax on container imports only. Both scenarios induce a substitution towards carbon-intensive shipping modes and increase U.S. carbon emissions from trade by 47.9%

Presented: Indiana Trade Seminar(2022), Southern Economics Association Meetings (2021).

Who pays for the Border Effect? General Equilibrium Welfare Impacts of Removing the US-Canadian Border (with Léonie Stone)

<u>Contribution</u>: Analyzed impact of removing the US-Canadian border on within US/Canadian and international manufacturing trade. The analysis is the first to incorporate input-output tables in a tractable general equilibrium framework. Border removal is equivalent to eliminating 24.7% tariff on manufacturing trade (compared to 0.6% median US-Canadian manufacturing tariff). I calculate welfare changes from border removal and find substantial welfare heterogeneity across U.S. states/Canadian provinces.

<u>Presented</u>: Western Economics Association Meetings (2022), Eastern Economics Association Meetings (2017), SUNY Geneseo GREAT Day (2017), COPLAC Northeastern Regional Conference (2016).

On Cooperation in Finitely and Indefinitely Repeated Prisoner's Dilemma Games (with Volodymyr Lugovskyy, Daniela Puzzello, and James Walker)

<u>Contribution</u>: Employed machine learning techniques to analyze the marginal effects of prisoner dilemma game parameters on predicting game-cooperation rates.

Leadership

Indiana University, Bloomington, Indiana USA

Experience

Associate Instructor

Full teaching responsibility: developed lectures, in-class activities, assignments, and exams; supervised teaching as-

sistants; and, mentored students.

Principles of Microeconomics Spring 2019, Summer 2019, Spring 2020, Fall 2020

Intermediate Microeconomics

Fall 2018, Summer 2019, Fall 2019

Professional Service Journal Peer-Review: Quarterly Review of Economics and Finance; Southern Economics Journal Community Enrichment: Indiana University-Spellman College Research Training Course

References

Dr. Volodymyr Lugovskyy (Chair)

Associate Professor (Economics)

Indiana University Phone: (812) 856-4594 Email: vlugovsk@iu.edu

Dr. Emerson Melo

Assistant Professor (Economics)

Indiana University Phone: (812) 855-9051 Email: emelo@iu.edu Dr. Arlie Sterling

President

Marsoft Incorporated Phone: (617) 369-7800

Email: arlie.sterling@marsoft.com

Dr. Kent Gardner

Chief Economist

Center for Government Research

Phone: (585) 466-4273 Email: kgardner@cgr.org

Dr. Léonie Stone

Assistant Professor (Economics)

SUNY Geneseo Phone: (585) 245-5428 Email: stone@geneseo.edu