Jesse Tweedle

http://jesse.tw; jesse.tweedle@gmail.com

Summary: Economics PhD with 3+ years of industry experience applying computational econometric methods to big data as a Research Economist.

Languages

R, Stata, SQL, Python, MATLAB, SAS, Java, Javascript, D3.js, ArcGIS, LaTeX

Education

University of Calgary

Ph.D., Economics, "Three essays on empirical networks and trade." 2011–2018 (*Expected*)

M.A., Economics, "An essay on spatial competition." 2007–2009

Mount Allison University

B.A. (Hons.), Math/Econ & CS minor, "An econometric study of orange juice futures." 2003–2007

Experience

Research Economist 2014–Present

Canadian Centre for Data Development and Economic Research (CDER), Economic Analysis Division, Statistics Canada

- Developed, cleaned, validated large confidential administrative shipment database (30m+ records). In R, SAS, SQL, and Stata.
- Use econometric methods appropriate for each situation: fixed effects models, gravity models, logistic regression, maximum likelihood, supervised machine learning.
- Co-wrote research reports and articles on trade and networks to inform policymakers (Industry Canada and Senate Committee on Interprovincial Trade).
- Worked with Communications Division to write and edit reports, as well as design and deploy data visualizations

Instructor 2014–2015

Math Camp, Dept. of Economics, University of Calgary

Research Assistant

- For Trevor Tombe, Dept. of Economics, University of Calgary 2011–2014
  - Paper: "The Missing Food Problem: Trade, Agriculture, and International Productivity Differences", https://www.aeaweb.org/articles?id=10.1257/mac.20130108
  - `Stata` programming: programmed method to test coefficient and standard error estimates based on randomly selected samples of countries in the world
- For Robert Rosebrugh, Dept. of Math and Computer Science, Mount Allison University 2003–2006
  - `Java` programming for the mathematical software Graphical Database for Category Theory (GDCT). Available: http://www.mta.ca/~rrosebru/project/gdct/index.html.
  - Reduced codebase by 25% (≈40,000 lines to 30,000) by improving the Object Oriented class and method organization.

Publications

1. "Correlated shocks within firms". *Economics Letters*, Volume 163, February 2018, pp. 95–97.
2. "A Hotelling style model of spatial competition for a convenience good", with B. Curtis Eaton. 2012. *The Annals of Regional Science*, Vol. 49, Issue 2, pp. 447–469.

Working papers

1. "The Microfoundations of Aggregate Volatility: Productivity, Geography or Network Asymmetry?"
2. "Going the Distance: Estimating the Effect of Provincial Borders on Trade when Geography (and Everything Else) Matters," with R. Bemrose and W. Brown. (Submitted.)
3. "Firm Networks, Borders and Regional Economic Integration," with W. Mark Brown and Afshan Dar-Brodeur. (R&R).
4. "Link Prediction In Heterogeneous Information Networks: Application to Identifying Firm Value Chains." Work in progress.
5. "Specialised vs. general human capital and firm productivity: evidence from Canadian matched employer-employee data," with Margaret Leighton. Work in progress.

Service

Graduate Student Association, University of Calgary
- Academic Standing Committee, Award Committee, Economics Department Rep. 2013-2014

Economics Graduate Association, University of Calgary
- VP Finance 2013-2014

References

Trevor Tombe, Ph.D.
Assistant Professor
Department of Economics
University of Calgary
Phone: (403) 220-8068
E-mail: ttombe@ucalgary.ca

W. Mark Brown, Ph.D.
Chief, Urban and Regional Analysis
Economic Analysis Division
Statistics Canada
Phone: (613) 951-7292
E-mail: mark.brown@canada.ca

Margaret Leighton, Ph.D.
Assistant Professor
School of Economics and Finance
University of St Andrews
Phone: +44 (0) 1334 462442
E-mail: mal22@st-andrews.ac.uk

Brent Cohn, M.A.
Data Scientist
Twitter
E-mail: bcohn@twitter.com