

Chapman University  
Argyros School of Business  
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## ACADEMIC POSITIONS

<b>Chapman University, Argyros School of Business</b>	
Argyros College Faculty Chair	2025-
Associate Professor (with tenure), Economics and Management Science	2024-
Assistant Professor, Economics and Management Science	2017-2024
Academic Director, Data Analytics Accelerator	2020-2023

## INDUSTRY AND PREVIOUS EXPERIENCE

Workhelix	
◦ Machine Learning Scientist	2022-
Inter-American Development Bank	
◦ Data Scientist Consultant	2019-21
World Bank Group	
◦ Data Scientist Consultant	2014-2016; 2018-20
MIT	
◦ Visiting Lecturer (Graduate Statistics)	Fall, 2016
Wellesley College	
◦ Visiting Lecturer (Undergraduate Economics)	Spring, 2016
University of Chicago Center for Population Economics	
◦ Research Manager	2011-2012
University of Chicago Booth School of Business	
◦ Research Assistant for Emily Oster)	2008-2009
RCF Economic and Financial Consulting	
◦ Economic Consultant	2006-2008
McMaster-Carr Supply Company	
◦ Software Developer	2005-2006

## EDUCATION

Ph.D., Economics, Boston University	2012-2017
M.Sc., Management and Applied Economics, Wharton, University of Pennsylvania	2009-2011
M.Sc., Economics, Barcelona Graduate School of Economics	2007-2008
A.B., Economics, University of Chicago	2001-2005
University of Kansas, Coursework in Computer Science and Mathematics	2000

## RESEARCH INTERESTS

AI Strategy and Societal Impacts, Human-AI Collaboration & Decision Support, Platform Economics, API and Technology Strategy, AI for Social Good & Development

## PUBLICATIONS

- (13) Brett Danaher, Jonathan Hersh, & Michael D. Smith. (2025). [From Bootleg to Binge: User Migration and Legal Demand Following Brazil's MegaFilmesHD Shutdown](#), *Review of Economic Research on Copyright Issues*, 22, 1-32.
- (12) Brett Danaher, Jonathan Hersh, Michael D. Smith, & Rahul Telang. (2025). [Fighting Crime Online, Communications of the ACM](#)

- (11) Seth Benzell, Jonathan Hersh, & Marshall Van Alstyne. (2023). [How APIs Create Growth by Inverting the Firm](#), **Management Science**
- (10) Shima Nabiee, Matthew Harding, Jonathan Hersh, and Nader Bagherzadeh. (2022) [Hybrid U-Net: Semantic segmentation of high-resolution satellite images to detect war destruction](#). **Machine Learning with Applications**, 9, 100381.
- (9) Jonathan Hersh and Joachim Voth. (2022) [Sweet Diversity: Overseas Trade and Gains from Variety after 1492](#). **Explorations in Economic History**, 101468.
- (8) Jonathan Hersh, Bree Lang, & Matthew Lang. (2022) [Car accidents, smartphone adoption and 3G coverage](#). **Journal of Economic Behavior & Organization**, 196, 278-293.
- (7) Ryan Engstrom, Jonathan Hersh, & David Newhouse. (2021). [Poverty from Space: Using High Resolution Satellite Imagery for Estimating Economic Well-being](#), **The World Bank Economic Review**; lhabo15, <https://doi.org/10.1093/wber/lhabo15>
- (6) Hannes Mueller, Andre Groger, Jonathan Hersh, Andrea Matranga, & Joan Serrat. (2021). [Analyzing Conflict From Space: Identification of Physical Destruction During the Syrian Civil War with Artificial Intelligence](#) **Proceedings of the National Academy of Sciences**, June 8, 2021 118 (23) e2025400118;<https://doi.org/10.1073/pnas.2025400118>
- (5) Jonathan Hersh, Ryan Engstrom, & Michael Mann, (2020). [Open data for algorithms: mapping poverty in Belize using open satellite derived features and machine learning](#). **Information Technology for Development**, 1-30.
- (4) Brett Danaher, Jonathan Hersh, Michael D. Smith, & Rahul Telang R. (2020). [The Effect of Piracy Website Blocking on Consumer Behavior](#) **MIS Quarterly**, 44:2
- (3) Matthew Harding & Jonathan Hersh. (2018). [Big Data in Economics](#) **IZA World of Labor**
- (2) Boris Babenko, Jonathan Hersh, David Newhouse, Anusha Ramakrishnan, & Thomas Swartz. [Poverty Mapping Using Convolutional Neural Networks Trained on High and Medium Resolution Satellite Images, With an Application in Mexico](#), **Neural Information Processing Systems Workshop on Machine Learning for the Developing World** (NeurIPS 2017)
- (1) Brian Bettenhausen, Eric Hanss, Jonathan Hersh, & Carlos Villarreal. (2014). [Historical Health Conditions in Major US Cities: The HUE Data Set](#) **Historical Methods**, 47: 67-80.

## WORKING PAPERS

- Selina Carter & Jonathan Hersh. (2024). Who Benefits When Artificial Intelligence Becomes Explainable? Evidence from a Field Experiment at a Large Bank
  - 2nd Round Revisions requested at *Strategic Management Journal*

## WORK IN PROGRESS

- Seth Benzell, Jonathan Hersh, and Marshall Van Alstyne. (2026). API Deployment and Startup Success
- Jonathan Hersh, Kaz Sakamoto, and Kushal Kumar Reddy. (2025). Delivering Public Services in Data-Scarce Environments: Using Open Data to Solve the Facility-Location Problem at Scale
- Jonathan Hersh, Brett Danaher. (2026). The Price of Fame: Estimating the Value of Celebrity Likeness in AI-Generated Video

## POLICY REPORTS AND CONFERENCE PUBLICATIONS

- (3) Jonathan Hersh, Lucia Martin Rivero, & Janelle Leslie. (May, 2021). [Where are the unbanked in Belize? Using Machine Learning small area estimation to improve Financial Inclusion geographic targeting](#) Inter-American Development Bank Monograph, May 2021 <http://dx.doi.org/10.18235/0003381>
- (2) Jonathan Hersh, Ryan Engstrom, Michael Mann, Alejandra Mejia, & Lucia Martin Rivero. (May, 2020). [Mapping Income Poverty in Belize Using satellite Features and Machine Learning](#) Inter-American Development Bank Monograph, May 2020 <http://dx.doi.org/10.18235/0002345>
- (1) Ryan Engstrom, David Newhouse, Vishwesh Haldavanekar, Andrew Copenhaver, & Jonathan Hersh. (2017, March). [Evaluating the Relationship Between Spatial and Spectral Features Derived from High Spatial Resolution Satellite Data and Urban Poverty in Colombo, Sri Lanka](#). In Urban Remote Sensing Event (JURSE), 2017 Joint (pp. 1-4). IEEE.

## CONFERENCE AND SEMINAR PRESENTATIONS

### *API Deployment and Startup Success*

- Statistical Challenges in E-Commerce Research (6/23/2025)

### *Explainable AI Helps Bridge the AI Skills Gap: Evidence from a Large Bank*

- KHIPU Latin American Conference in Artificial Intelligence, PUC Chile (3/12/2025)
- University of Pennsylvania, Wharton School of Business (4/12/2024)
- Stony Brook University, College of Business (2/13/2024)
- NOVA School of Economics (1/30/2024)
- American University, Kogod School of Business (11/30/2023)
- MIT Conference on Digital Experimentation (11/10/2023)
- INFORMS Annual, Human-Centered Machine Learning Session (10/17/2023)
- Wharton/Columbia Management, Analytics and Data MAD 2023 (5/19/2023)
- USC Artificial Intelligence in Management, AIM 2023 (3/16/2023)
- Erasmus University Rotterdam (3/14/2023)
- UC Riverside, Department of Economics (4/2022)
- USC Marshall School of Business, Management & Organization (9/2021)
- Global Conference on Innovations in Management and Business (2021)
- INFORMS Conference on Information Systems & Technology (CIST) (2020)

### *Delivering Public Services in Data-Scarce Environments: Using Open Data to Solve the Facility-Location Problem at Scale*

- Notre Dame (11/15/2023)
- [World Bank](#) (5/2022)
- American Economic Association Annual Meeting 2023 (1/2023)

### *How APIs Create Growth by Inverting the Firm*

- \*Columbia/Wharton Management, Analytics And Data Conference (2022)
- Statistical Challenges in E-Commerce Research (2018)
- API Days Global New York (7/2022)

### *Car accidents, smartphone adoption and 3G coverage*

- Anahuac University, Mexico (2/2020)
- Federal Communications Commission (9/2019)
- \*American Economic Association Annual Meeting (1/2019)
- \*UC Riverside (2018)

### *From Bootleg to Binge: User Migration and Legal Demand Following Brazil's MegafilmesHD Shutdown*

- \*Statistical Challenges in E-Commerce Research (2019)

*Analyzing Conflict From Space: Identification of Physical Destruction During the Syrian Civil War with Artificial Intelligence*

- \*Berkeley (2020)
- \*ENS Lyon (2019)
- \*Trinity College (2019)
- \*Uppsala ViEWS (2019)
- INFORMS International (2018)
- Empirical Studies of Conflict Annual Meeting (2018)
- Artificial Intelligence for Development (CEGA/World Bank) (2018)
- Princeton University, Empirical Studies of Conflict (3/2018)

*Combining Deep Learning With Surveys to Generate Better Poverty Maps, with an application to Mexico*

- Pacific Development Conference (2018)

*Poverty from Space: Using High Resolution Satellite Imagery for Estimating Economic Well-being*

- UC Riverside (11/2017)
- Penn State (10/2017)
- University of Southern California (9/2017)
- UN Development Program, Human Development Report Office (7/2017)
- Princeton University, Empirical Studies of Conflict (7/2017)
- Chapman University, Argyros School of Business (12/2016)
- World Bank, Development Economics Group (1/2017)
- Geospatial Analysis for International Development, CEGA/Berkeley, (2017)
- Prediction for Prevention of Armed Conflict, Barcelona, Spain (2017)
- World Bank Annual Bank Conference on Development Economics (2016)

*Unintended Consequences of the African Growth and Opportunity Act: The Role of Trade Diversion and Structural Change*

- Computational and Financial Econometrics (2016)
- Center for the Study of African Economies: Economic Development in Africa (2016)
- Eastern Economic Association (2016)

\* Denote presentation by co-author

## TEACHING

Chapman University

MGSC 310: Statistical Models in Business Analytics (Introduction to Machine Learning) [[Syllabus](#)]

- Interterm 2024 [Instructor rating: 5/5]
- Fall 2022 (x2) [Instructor rating: 4.6/5]
- Fall 2021 (x2) [Instructor rating: 4.1/5]
- Fall 2020 (x2) [Instructor rating: 4.27/5]
- Fall 2019 (x2) [Instructor rating: 4.32/5]

BUS 659: Machine Learning for Managers [[Syllabus](#)]

- Fall 2025 [Instructor rating: 4.31/5]
- Spring 2025 [Instructor rating: 4.31/5]
- Spring 2024 [Instructor rating: 4.44/5]
- Spring 2023 [Instructor rating: 4.38/5]
- Fall 2021 [Instructor rating: 4.88/5]
- Fall 2020 [Instructor rating: 4.49/5]
- Fall 2019 [Instructor rating: 3.49/5]

## ECON 441: Development Economics

- Interterm 2025 [*Instructor rating: 4.33/5*]
- Fall 2018 [*Instructor rating: 4.45/5*] [\[Syllabus\]](#)
- Spring 2018 [*Instructor rating: 3.81/5*]

## MGSC 207: Introduction to Business Analytics

- Fall 2017 [*Instructor rating: 4.21/5*] [\[Syllabus\]](#)

## Anahuac University, Mexico City

### Introduction to Machine Learning

- Winter 2020 [\[Syllabus\]](#)

## MIT

### Quantitative Research Methods III (Political Science PhD quantitative sequence)

- Fall 2017 [\[Syllabus\]](#)

## Wellesley College

### Development Economics

- Spring 2016, [\[Syllabus\]](#) [92.8% course recommend/strongly recommend/neutral]

### Introductory Microeconomics

- Spring 2016 (x2) [\[Syllabus\]](#) [95.2% course recommend/strongly recommend/neutral]

## World Bank

### Introduction to Machine Learning

- Winter 2019, [*Instructor rating: 6.23/7*]
- Summer 2018, [*Instructor rating: 6.07/7*]
- Summer 2017, [*Instructor rating: 6.64/7*]
- Summer 2016

## PROFESSIONAL SERVICE

**Ad Hoc Referee:** *Information Systems Research, MIS Quarterly, Management Science, Review of Economic Studies, World Bank Economic Review, Journal of Business Analytics, Economic Inquiry, PLOS ONE, Social Sciences & Humanities Open, ICIS 2020, ICIS 2021, PNAS*

**Associate Editor:** *International Conference on Information Systems (ICIS) 2024*

**Editorial Board:** *Journal of Business Analytics*

**Program Committee:** ACM (Association for Computing Machinery) Conference on Computing and Sustainable Societies (ACM COMPASS 2020), 2020, 2021

**Panel Organizer:** Inter-American Development Bank (Big Data for Migration) 2019; Pacific Development Conference 2018

**Instructor's Manual Author:** *R for Everyone: Advanced Analytics and Graphics* (Addison Wesley) [\[link1\]](#) [\[link2\]](#)

**Discussant:** 11th Digital Economics Conference (Toulouse School of Economics) [\[slides\]](#); Pacific Development Conference (UC Davis) [\[slides\]](#)

## DEPARTMENT AND UNIVERSITY SERVICE

### 2025-2026

- ACBE Faculty Chair
- Management Science Hiring Committee

## 2023-2024

- Graduate Academic Council Member

## 2022-2023

- Academic Director, Data Analytics Accelerator

## 2021-2022

- Academic Director, Data Analytics Accelerator
- Academic Adviser, Data Analytics Association student club

## 2020-2021

- Management Science Hiring Committee
- Academic Director, Data Analytics Accelerator
- Academic Adviser, Data Analytics Association student club

## 2019-2020

- Management Science Hiring Committee
- Reviewer, Faculty Opportunity Fund University Grant
- Academic Adviser, Data Analytics Association student club
- Center for UG Excellence UG Scholarly/Creative Grant Reviewer

## 2018-2019

- Graduate and MBA Academic Committee Member
- Judge, American Statistical Association Southern California DataFest
- Management Science Hiring Committee
- Judge, Panther Cage Match, Leatherby Center for Entrepreneurship and Business Ethics

## 2017-2018

- Management Science Hiring Committee
- Reviewer, Kay Family Foundation Data Analytics Grant
- Graduate and MBA Academic Committee Member
- Judge, American Statistical Association Southern California DataFest

## FELLOWSHIPS AND AWARDS

- Spanish Society of Statistics and Operations Research, BBVA Foundation Award, Best Contribution From Statistics and Operations Research Using Data Science and Big Data (6,000€ award), 2023
- Faculty Career Champion Nominee, 2021
- Kay Family Foundation Data Analytics Grant, “Towards Responsive Social Safety Nets: Openly Derived Indicators as Proxies for Subnational Multi-Dimensional Vulnerability in Africa” (\$93,150)

## 2020-2022

- Chapman University Faculty Opportunity Fund (\$13,460) 2019
- La Caixa Research Grant on Socioeconomic Well-being (€20,000) 2017
- Hariri Institute for Computational Science Graduate Fellowship 2016
- Big Data Innovation Challenge Award, World Bank Group (\$104,000) 2014
- Teaching Fellowship, Boston University 2013-2014
- Dean’s List, University of Chicago

## INDUSTRY ADVISING

- [Introduction to Machine Learning](#), Central Bank of Belize, 2020
- [Introduction to Machine Learning](#), Statistical Institute of Belize, 2019
- [Introduction to Deep Learning](#), Arconic 2018

## MEDIA APPEARANCES AND PUBLIC TALKS

- [NPR's Weekend Edition - “Research finds how AI will impact demographics differently”](#)

[Learning From Unstructured Data in Business Research](#), USC SoCal Strategy and OT Workshop, April 7, 2023

[Why Is It So Hard to Scale Development Data Projects? Answer: Build a Data Lake First](#), Private Sector Development Research Network Workshop on Firm level Data, April 6, 2021

[Get Your Hands Dirty: You Should Model with Unstructured Data](#), University of Michigan, School of Information guest lecture, March 30, 2021

[How to Start a Data Science Insurrection at an Organization that Would Prefer You Not](#), DC R Conference, November 9, 2018

Applications of Machine Learning to Development Economics Research, June 8, 2018 [\[slides\]](#)

[Applying Deep Learning to Satellite Images to Estimate Violence in Syria and Poverty in Mexico](#), New York R Conference, April 21, 2018

## CODING

*R, Stata, Python, C++, SQL, PyTorch, Pandas, AWS*

## REFERENCES

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Marshall Van Alstyne Boston University <a href="mailto:mva@bu.edu">mva@bu.edu</a>	Michael D Smith Carnegie Mellon <a href="mailto:mds@cmu.edu">mds@cmu.edu</a>	Erik Brynjolfsson Stanford <a href="mailto:erik.assistant@gmail.com">erik.assistant@gmail.com</a>
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