

Ali Hortacısu

University of Chicago
Department of Economics
1126 E. 59th Street
Chicago, IL 60637

Phone: (773) 702-5841
Fax: (773) 702-8490
Email: hortacsu@uchicago.edu
Homepage: <http://home.uchicago.edu/~hortacsu>

Education

B.S./M.S. (co-terminal) in Electrical Engineering, Stanford University, 1996.

Ph.D. in Economics, Stanford University, 2001.

Employment

University of Chicago

William M. Ogden Distinguished Service Professor of Economics: 2025-.

Ralph and Mary Otis Isham Professor of Economics: 2014-2024.

Professor of Economics: 2006-2014.

Assistant Professor of Economics: 2001-2006.

Yale University and Cowles Foundation

Visiting Professor of Economics: Fall 2007.

Northwestern University, Center for the Study of Industrial Organization

Visiting Assistant Professor of Economics: Winter-Spring 2004.

Harvard University

Visiting Assistant Professor of Economics: Fall 2003.

Honors and Awards

WFA Two Sigma award for the best paper in investment management, "Entry and Exit in Treasury Auctions." June 2024.

Rahmi Koç Medal of Science, November 2021.

Member, American Academy of Arts and Sciences, elected 2016.

Fellow, Econometric Society, elected 2013.

Research Associate, NBER Industrial Organization Program.

Alfred P. Sloan Research Fellow, 2006-2008.

Review of Economic Studies European Tour participant, May 2001.

Publications

Books

1. *Handbook of Industrial Organization, Volume 4*, edited with Kate Ho and Alessandro Lizzeri, Elsevier, December 2021.
2. *Handbook of Industrial Organization, Volume 5*, edited with Kate Ho and Alessandro Lizzeri, Elsevier, December 2021.
3. *Structural Econometric Methods in Industrial Organization and Quantitative Marketing*, with Joonhwi Joo, October 2023, Princeton University Press.

Journal Articles

1. “Winner’s Curse, Reserve Prices and Endogenous Entry: Empirical Insights from eBay,” with Patrick Bajari, *RAND Journal of Economics*, v. 34, Summer 2003, p. 329-355.
2. “Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry: A Case Study of S&P 500 Index Funds,” with Chad Syverson, *Quarterly Journal of Economics*, v. 119, May 2004. p. 403-456.
3. “Economic Insights from Internet Auctions: A Survey” with Patrick Bajari, *Journal of Economic Literature*, v.42, June 2004, p. 457-486.
4. “Are Structural Estimates of Auction Models Reasonable? Evidence from Experimental Data,” with Patrick Bajari, *Journal of Political Economy*, v.113, no. 4 August 2005, p. 703-741.
5. “Cementing Relationships: Vertical Integration, Foreclosure, Productivity, and Prices,” with Chad Syverson, *Journal of Political Economy*, v.115, no.2, April 2007, p. 250-301.
6. “On the Empirical Content of Quantal Response Equilibrium,” with Philip Haile and Grigory Kosenok, *American Economic Review*, v. 91, no.1, March 2008, p. 180-200.
7. “Understanding Strategic Bidding in Multi-Unit Auctions: A Case Study of the Texas Electricity Spot Market,” with Steven Puller, *RAND Journal of Economics*, v. 39, Spring 2008, p. 86-114.
8. “The Geography of Trade on eBay and Mercado Libre,” with Jason Douglas and Asis Martinez-Jerez, *American Economic Journal: Microeconomics*, v. 1, no.1, February 2009, p. 53-74.
9. “Matching and Sorting in Online Dating,” with Günter Hitsch and Dan Ariely, *American Economic Review*, v. 100, no. 1, March 2010, p. 130-163.
10. “Dynamics of Seller Reputation: Theory and Evidence from eBay,” with Luis Cabral, *Journal of Industrial Economics*, v. 58, no.1, March 2010, p. 54-78.
11. “E-Commerce and the Market Structure of Retail Industries,” with Maris Goldmanis, Chad Syverson and Onsel Emre, *Economic Journal*, v. 120, no. 545, June 2010.
12. “What Makes You Click? Mate Preferences in Online Dating,” with Günter Hitsch and Dan Ariely, *Quantitative Marketing and Economics*, v. 8, no. 4, December 2010, p. 393-427.
13. “Mechanism Choice and Strategic Bidding in Divisible Good Auctions: An Empirical Analysis of the Turkish Treasury Auction Market,” with David McAdams, *Journal of Political Economy*, v. 188, no.5, October 2010, pp. 833-865.

14. “Commentary: Do Bids Equal Values on eBay?” with Eric Nielsen, *Marketing Science*, v. 29, no. 6, November-December 2010, pp. 994-997.
15. “Entry into Auctions: An Experimental Analysis,” with Seda Ertac and James Roberts, *International Journal of Industrial Organization*, v. 29, no. 2, March 2011, pp. 168-178.
16. “Recent Progress in the Empirical Analysis of Multi-Unit Auctions,” *International Journal of Industrial Organization*, v.29, no. 3, 2011, pp. 345-49.
17. “Is an Automaker’s Road to Bankruptcy Paved with Customers’ Beliefs?” with Gregor Matvos, Chaehee Shin, Chad Syverson, and Sriram Venkataraman, *American Economic Review Papers and Proceedings*, v. 101, no.3, 2011, pp. 93-97.
18. “Network Structure of Production,” with Enghin Atalay, James Roberts, and Chad Syverson, *Proceedings of the National Academy of Sciences*, v. 108, no.3, 2011, pp. 5199-5202.
19. “Mental attributes and temporal brain dynamics during bargaining: EEG source localization and neuroinformatic mapping,” with Burak Guclu, Seda Ertac and John List, *Social Neuroscience*, v.7, no.2, 2012, pp. 159-77.
20. “Testing Models of Consumer Search Using Data on Web Browsing and Purchasing Behavior,” with Babur De Los Santos and Matthijs R. Wildenbeest, *American Economic Review*, v. 102, no.6, 2012, pp. 2955-80.
21. “Valuing Dealers’ Informational Advantage: A Study of Canadian Treasury Auctions” with Jakub Kastl, *Econometrica*, v. 80, no.6, 2012, pp. 2511-42.
22. “Indirect Costs of Financial Distress in Durable Goods Industries: The Case of Auto Manufacturers,” with Gregor Matvos, Chad Syverson and Sriram Venkataraman, *Review of Financial Studies*, v. 26, no.5, 2013, pp. 1248-1290.
23. “The 2007 Subprime Market Crisis Through the Lens of European Central Bank Auctions for Short-Term Funds,” with Nuno Cassola and Jakub Kastl, *Econometrica*, v. 81, no.4, 2013, pp. 1309-45.
24. “Vertical Integration and Input Flows” with Enghin Atalay and Chad Syverson, *American Economic Review*, v. 104, no.4, 2014, pp. 1120-48.
25. “The Ongoing Evolution of US Retail: A Format Tug-of War,” with Chad Syverson, *Journal of Economic Perspectives*, v. 29, no. 4, 2015, pp. 89-112.
26. “Trading experience modulates anterior insula to reduce the endowment effect,” with Lester Tong, Karen Ye, Seda Ertac, John List and Howard Nusbaum, *Proceedings of the National Academy of Sciences*, v.113, no. 33, 2016, pp. 9238-9243.
27. “The Determinants of Bank Mergers: A Revealed Preference Analysis,” with Tony Cookson and Oktay Akkuş, *Management Science*, v. 62, no. 8, 2016, pp. 2241-2258.
28. “Deposit Competition and Financial Fragility: Evidence from the U.S. Banking Sector,” with Mark Egan and Gregor Matvos, *American Economic Review*, v. 107, no.1, 2017, pp. 169-216.
29. “Search with Learning for Differentiated Products: Evidence from E-Commerce,” with Babur de los Santos and Matthijs Wildenbeest, *Journal of Business and Economic Statistics*, v. 35, no. 4, 2017, pp. 626-641.
30. “Inverse Optimization for the Recovery of Market Structure from Market Outcomes: An Application to the MISO Electricity Market,” with John Birge and Michael Pavlin, *Operations Research*, v. 65, no.4, 2017, pp. 837-855.

31. “Advertising, Consumer Awareness and Choice: Evidence from the U.S. Banking Industry,” with Elisabeth Honka and Maria Ana Vitorino, *RAND Journal of Economics*, v. 48, no. 3, 2017, pp. 611-646.
32. “Sales Force and Competition in Financial Product Markets: The Case of Mexico’s Social Security Privatization,” with Justine Hastings and Chad Syverson, *Econometrica*, v. 85, no. 6, 2017, pp. 1723-61.
33. “Power to Choose: An Analysis of Consumer Behavior in the Texas Retail Electricity Market,” with Seyed Ali Madanizadeh and Steven Puller, *American Economic Journal: Economic Policy*, v. 9, no. 4, 2017, pp. 192-226.
34. “Bid Shading and Bidder Surplus in U.S. Treasury Auctions,” with Jakub Kastl and Allen Zhang, *American Economic Review*, v. 108, no.1, January 2018, pp. 147-69.
35. “Empirical Work on Auctions of Multiple Objects,” with David McAdams, *Journal of Economic Literature*, v. 56, no. 1, March 2018, pp. 157-84.
36. “Limits to Arbitrage in Electricity Markets: An Empirical Analysis of MISO,” with John Birge, Michael Pavlin, Ignacia Mercadal, *Energy Economics*, v. 75, September 2018, pp. 518-533.
37. “The Impact of Big Data on Firm Performance: An Empirical Investigation,” with Patrick Bajari, Victor Chernozhukov, and Junichi Suzuki, *American Economic Association Papers and Proceedings*, v. 109, May 2019, pp. 33-77.
38. “Trade, Merchants and Lost Cities of the Bronze Age,” with Gojko Barjamovic, Thomas Chaney, and Kerem Coşar, *Quarterly Journal of Economics*, v. 134, no.3, August 2019, pp. 1455-1503.
39. “How Wide is the Firm Border?” with Enghin Atalay, Mary Jialin Li, and Chad Syverson, *Quarterly Journal of Economics*, v. 134, no. 4, November 2019, pp. 1845-1882.
40. “Strategic Ability and Productive Efficiency in Electricity Markets,” with Fernando Luco, Steven Puller and Dongni Zhu, *American Economic Review*, v.109, no.12, December 2019, pp. 4302-42.
41. “Monetary Incentives on Inter-caste Marriages in India: Theory and Evidence,” with Il-Myoung Hwang and Divya Mathur, *Journal of Development Economics*, v.141, November 2019.
42. “The Production Relocation and Price Effects of U.S. Trade Policy: The Case of Washing Machines,” with Aaron Flaaen and Felix Tintelnot, *American Economic Review*, v.110, no.7, July 2020, pp. 2103-27.
43. “Estimating the Fraction of Unreported Infections in Epidemics with a Known Epicenter: an Application to COVID-19,” with Jiarui Liu and Timothy Schweg, *Journal of Econometrics*, v. 220, no.1, January 2021, pp. 106-129.
44. “Assortative matching and reputation in the market for first issues,” with Tony Cookson and Oktay Akkuş, *Management Science* v.67, no.4, April 2021.
45. “Analyzing Default Risk and Liquidity Demand during a Financial Crisis: The Case of Canada,” with Jason Allen and Jakub Kastl, *American Economic Journal: Microeconomics*, v.13, no. 2, May 2021, pp. 243-75.
46. “Random-Coefficients Logit Demand Estimation With Zero-Valued Market Shares,” with Jean-Pierre Dube and Joonhwi Joo, *Marketing Science*, v. 40, no. 4, July-August 2021.
47. “Fire Sale Spillovers in Debt Markets,” with Antonio Falato, Dan Li, and Chaehee Shin, *Journal of Finance*, v. 76, no, 6, December 2021, pp. 3055-3102.

48. “Prices and Promotions in U.S. Retail Markets,” with Guenter Hitsch and Xiliang Lin, *Quantitative Marketing and Economics*, v. 19, October 2021, pp. 289–368.
49. “Financial Fragility in the COVID-19 Crisis: The Case of Investment Funds in Corporate Bond Markets,” with Antonio Falato and Itay Goldstein, *Journal of Monetary Economics*, v. 123, October 2021, pp. 35-52.
50. “Selection Bias in Voluntary Random Testing: Evidence from a COVID-19 Antibody Study,” with Deniz Dutz, Michael Greenstone, Santiago Lacouture, Magne Mogstad, Danae Roumis, Azeem M. Shaikh, and Alexander Torgovitsky, and Winnie van Dijk, *American Economic Association Papers and Proceedings*, v113, May 2023, pp. 562-566.
51. “Incorporating Sales and Arrival Information in Demand Estimation,” with Olivia Natan, Hayden Parsley, Timothy Schweg, and Kevin Williams, *Quantitative Economics*, v. 14, no.4, November 2023, pp. 1251-1294.
52. “Organizational Structure and Pricing: Evidence from a Large U.S. Airline,” with Olivia Natan, Hayden Parsley, Timothy Schweg and Kevin Williams, forthcoming, *Quarterly Journal of Economics*.
53. “Searching for Approval,” with Sumit Agarwal, John Grigsby, Gregor Matvos, Amit Seru, and Vincent Yao, forthcoming, *Econometrica*.
54. “Representation and Hesitancy in Population Health Research: Evidence from a COVID-19 Antibody Survey,” with Deniz Dutz, Michael Greenstone, Santiago Lacouture, Magne Mogstad, Azeem Shaikh, Alex Torgovitsky, and Winnie van Dijk, conditionally accepted, *American Economic Review: Insights*.

Other Publications

1. “Cyberspace Auctions and Pricing Issues: A Review of Empirical Findings,” with Patrick Bajari, in *New Economy Handbook*, Derek Jones (ed.), Elsevier, 2003.
2. “Empirical search and consideration sets,” with Elisabeth Honka and Matthijs Wildebeest, in *Handbook of the Economics of Marketing*, Jean-Pierre Dube and Peter Rossi (ed.), Elsevier, 193-257, 2019.

Papers Under Review and Working Papers

1. “Finding Exogenous Variation in Data,” with Eliot Abrams and Zhida Gui, revise and resubmit, *Quantitative Marketing and Economics*.
2. “Dynamic Price Competition: Theory and Evidence from Airline Markets, with Jose Betancourt, Aniko Oery, and Kevin Williams, June 2024.
3. “Micro- and Macroeconomic Impacts of a Place-Based Industrial Policy,” with Enghin Atalay, Mustafa Runyun, Chad Syverson, and Mehmet Fatih Ulu, January 2024.
4. “Estimating Nesting Structures,” with Jonas Lieber, Julie Monardo, Aureo de Paula, February 2024.
5. “Entry and Exit in Treasury Auctions,” with Jason Allen, Eric Richert, and Milena Witwer, March 2024.
6. “Pollution Abatement and Productivity: Evidence from Chinese Manufacturing,” with Gautam Gowrisankaran, Mengdi Liu, and Caixia Shen, February 2023.
7. “An Empirical Analysis of Systemic Risk in the Euro-zone,” with Pietro Bonaldi and Jakub Kastl, under review.

8. “Average vs. Individual Giving in the Dictator Game,” with Nicolette Sullivan, Howard Nusbaum, and John List, under review.
9. “Different brains for different givers: Future giving behavior predicted by brain activity in the human striatum” with Nicolette Sullivan, Howard Nusbaum, John List, and Steven L. Small, under review.
10. “An Empirical Test of Auction Efficiency: Evidence from MBS Auctions of the Federal Reserve,” with Pietro Bonaldi and Zhaogang Song, Federal Reserve Board working paper, 2015-082.
11. “Estimating Local Fiscal Multipliers: Evidence from China,” with Chong Liu and Li-An Zhou, working paper.
12. “Economic Effects of U.S. Federal Disaster Relief Programs,” with Laszlo Jakab and Tobias Moskowitz, working paper.
13. “Order Flow and the Formation of Dealer Bids in Treasury Auctions,” with Samita Sareen, working paper.

Editorial and Referee Service

Co-Editor (with Kate Ho and Alessandro Lizzeri): *Handbook of Industrial Organization*, vols. 4 and 5, 2019-21.

Co-Editor: *Journal of Political Economy* 2013-2018.

Co-Editor: *RAND Journal of Economics* 2010-2013.

Associate Editor: *American Economic Review* 2011-2013.

Associate Editor: *Journal of Business and Economic Statistics* 2009-2012.

Co-Editor: *International Journal of Industrial Organization* 2006-2008.

Associate Editor: *Journal of Industrial Economics* 2006-2008

Member of editorial board: *Quantitative Marketing and Economics*.

Served as a member of the NSF Economics panel

Program committee: AEA meeting 2022, Econometric Society World Congress 2015, NBER Winter 2015 IO conference, Econometric Society World Congress 2010, Society for Economic Design 2008 Meeting, NBER Winter 2005 IO conference, SED 2004, 2005, 2009, European Econometric Society Meeting 2003.

Referee service: NSF, American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics, Review of Economic Studies, RAND Journal of Economics, Journal of Finance, Review of Financial Studies, Journal of Economic Theory, Games and Economic Behavior, Review of Economics and Statistics, International Journal of Industrial Organization, Journal of Industrial Economics, Journal of Economics and Management Strategy, Review of Industrial Organization, Journal of Marketing Research, Quantitative Marketing and Economics, Journal of Business and Economic Statistics, Marketing Science.

Invited Lectures and Mini-courses

- Keynote Speaker, Empirical Industrial Organization Conference, University of Florida, February 2024.
- Keynote Speaker, EARIE (European Association for Research in Industrial Economics), Rome, August 2023.
- Keynote Speaker, Paris School of Economics-Rice University Industrial Organization Conference, Paris, May 2023.
- Mini-course on the industrial organization of financial markets, Bank of Chile, August 2022.
- Keynote Speaker, 5th Annual Microeconomics Workshop, Banff, 2019.
- Keynote Speaker, FTC Microeconomics Conference, 2018
- Keynote Speaker, Greater China Area Finance Conference, Xiamen, 2016.
- Research Visitor, CAFRAL, Mumbai, 2016.
- Keynote Speaker, LEAR Antitrust 2.0 conference, Rome, 2015.
- Semi-plenary, North American Econometric Society Meetings, Minneapolis, 2014.
- Keynote Speaker, EARIE Conference, Evora, 2013.
- Keynote Speaker, CEPR/JIE Applied Industrial Organization Conference, Bologna, 2013.
- Mini-course on empirical industrial organization, University of Cincinnati, 2012
- Keynote Speaker, Renmin Microeconometrics Conference 2012, Beijing
- Mini-course on empirical industrial organization, UT Austin, 2012
- Invited Lecture, KDI Productivity in Service Sector Conference 2011, Seoul
- Invited Lecture, EARIE 2010, Istanbul
- Invited Lecture, Econometric Society Far Eastern Meeting 2009, Tokyo
- Mini-course on auctions, Bank of Canada, 2007

Research Grants

- C3.AI Digital Transformation Research Award, “The Role of Interconnectivity and Strategic Behavior in Electric Power System Reliability,” 2021-2024, (co-PI John Birge)
- NSF Grant #SES-1824313, “Pollution Mitigation and Productivity in Developing Countries,” 2018-2021 (co-PI Gautam Gowrisankaran)
- Facebook Academic Research Award, February 2017.
- NSF Grant #IBSS 1520074, “The Impact of Foreign Languages on Problem Solving: An Interdisciplinary Study of Language & Society,” (PI: Boaz Keysar, Co-PIs: James Evans, Howard Nusbaum)
- NSF Grant #SES 1426823, “Advertising, Search and Matching: Econometric Models and Applications,” 2014-2016

NSF Grant #ICES-1216083, “Understanding the Roles of Intermediaries in Matching Markets,” 2012-2013 (co-PIs Eric Budish and Nicole Immorlica)

NSF Grant #SES-1124073, “Firms, Networks and Shocks: An Empirical Perspective,” 2011-2013

NSF HSD Grant #0729322, “Context, Experience, and Market Anomalies,” 2007-2010 (co-PIs John List, Howard Nusbaum, and Steven Small).

University of Chicago Energy Initiative Research Grant

NSF CAREER Grant #SES-0449625, “Empirical Analysis of Auction and Matching Markets,” 2005-2010.

NET Institute Research Grants, 2005,2006, 2009.

NSF Grant #SES-0242031, “Entry, Competition, and Welfare in the Mutual Fund Industry,” from June 15, 2003 to May 31, 2005 (co-PI Chad Syverson)

Departmental and divisional service

Social Science Division Research Infrastructure Committee, 2023-.

Committee On Intellectual Property, Office of the Provost, 2022-23.

Brain and Behavior Initiative committee, Office of the Provost

Steering committee, Computational Social Science program, Social Science Division.

Director of graduate studies: 2012-13.

Co-director of graduate admissions: 2010-13.

Co-director of Ph.D. placement: 2009-10.

Junior and senior faculty recruiting: various years.

Teaching and advising

Teaching

Graduate and undergraduate industrial organization, graduate and undergraduate econometrics, undergraduate intermediate microeconomics.

Doctoral advisees (if chaired committee)*

1. Pedro Jobim Ferreira
2. Jose M. Liberti (London Business School)
3. Audrius J. Girnius (Analysis Group)
4. Ricard Gil (UC Santa Cruz)
5. Clarissa Yeap (University of Minnesota Applied Econ)

6. Justin Marion (UC Santa Cruz)
7. Jacques Potin (ESSEC)
8. Marcelo Rezende* (Federal Reserve Board of Governors)
9. Babur De Los Santos* (Indiana University Kelley School of Business)
10. Divya Mathur* (Analysis Group)
11. Oktay Akkuş* (Bates & White LLC)
12. Mitsukuni Nishida (Johns Hopkins Carey School)
13. Francesco Decarolis* (University of Wisconsin-Madison)
14. Gustaf Bruze* (University of Aarhus)
15. Maris Goldmanis* (Royal Holloway)
16. Hector Perez-Saiz (Bank of Canada)
17. Devesh Raval* (Amazon)
18. Adriana Palacios-Huerta (Charles River Associates)
19. Elisabeth Honka (UT Dallas School of Management)
20. Minki Kim (Korea Advanced Inst. of Science and Technology)
21. Margarida Soares* (Charles River Associates)
22. Julian Reif (University of Illinois Urbana-Champaign)
23. J. Anthony Cookson* (University of Colorado at Boulder)
24. Mickey Ferri (Quant Economics)
25. Chaehee Shin* (Federal Reserve Board of Governors)
26. Enghin Atalay* (University of Wisconsin-Madison)
27. Eric Nielsen (Federal Reserve Board of Governors)
28. Juliette Caminade (Charles River Associates)
29. Mark Egan* (Univ. of Minnesota, Carlson School)
30. Il-Myoung (Sam) Hwang* (University of British Columbia)
31. Denrick Bayot* (Cornerstone Research)
32. Avigail Kifer* (Cornerstone Research)
33. Joern Boehnke* (UC Davis Graduate School of Management)
34. Gilbert Park (Hong Kong Polytechnic University)
35. Raluca Ursu* (NYU Stern School of Business)
36. Alexander MacKay* (Harvard Business School)

37. Sara Ferreira Moreira (Northwestern Kellogg)
38. Kentaro Asai* (Australian National University)
39. Ignacia Mercadal* (Columbia University - SIPA)
40. Gunnar Heins (University of Florida)
41. Karl Schurter* (Pennsylvania State University)
42. Pietro Bonaldi* (Carnegie Mellon - Tepper)
43. Munseob Lee (UC San Diego School of Global Policy and Strategy)
44. Mary Jialin Li (Compass Lexecon)
45. Joonhwi Joo* (UT Dallas School of Management)
46. Albert Tan* (Analysis Group)
47. Jose Tudon Maldonado* (ITAM)
48. Xiliang Lin (JD.com)
49. Karen Ye* (Queens University)
50. Jose Ignacio Cuesta* (Stanford University)
51. Winnie van Dijk (Harvard University)
52. Karthik Nagarajan* (Charles River Associates)
53. Kyeongbae Kim* (Korea Development Institute)
54. Fang Fu* (Amazon)
55. Chenyu Qiu (Uber)
56. Eliot Abrams (Cornerstone Research)
57. Siying Cao* (Chinese University of Hong Kong)
58. Olivia Natan (UC Berkeley Haas)
59. Mengyue He* (Twitter)
60. Francisco Asis del Villar* (Facebook)
61. Rafael Jimenez Duran (Bocconi University)
62. James Traina (San Francisco Fed)
63. Jiarui Liu* (NYU Stern)
64. Oguz Bayraktar* (Oxford post-doc)
65. Jonas Lieber (Imperial College of Business)
66. Marco Loseto* (Bocconi University)
67. Esperanza Johnson* (Cornerstone Research)

Industry activities

Visiting Researcher, Google Inc., Summer 2007.

Consultant, HomoExperimentalis LLC, November 2010-April 2012.

Visiting Researcher, Microsoft Research New England, July 2012-December 2014.

Consultant, RedPeak Consulting, January-December 2014.

Consultant, Sidley Austin LLP, May 2015-March 2016; July 2017-December 2017.

Academic research consultant, Amazon Inc., July 2016-ongoing.

Advisor to startups: Zetrip Inc. (acquired by TripAdvisor.com), Global Consequences, Inc., and Metanautix Inc. (acquired by Microsoft).