
ORHAN ERDEM

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PROFESSIONAL SUMMARY

I am an economist and data scientist with over a decade of experience across academia and applied AI in the U.S. and Turkey. My work spans artificial intelligence and machine learning, finance, and health, pairing rigorous quantitative methods with a focus on policy relevance and real-world application. I have led interdisciplinary research teams, directed the research department of a national stock exchange, and built lasting partnerships across industry and the public sector, with publications in leading journals and AI-driven tools that turn research into practical impact.

SIGNATURE STRENGTHS

• Data science • Financial Markets • Causal inference • Predictive modeling • Python • Supervised learning • Artificial Intelligence

CAREER EXPERIENCE

2025-present: Clinical Associate Professor, University of North Texas

- Developed/ taught predictive modeling and data-driven decision-making courses.
- Conducting research in healthcare and LLMs.

2025- present: Founder and CEO of Datarium

- Lead the development of AI-driven solutions for consumers and enterprises, including [StockPik](#), to enhance decision-making.

2023- 2025: Clinical Assistant Professor, University of North Texas

- Instructed courses in data analytics and machine learning.
- Organized “AI in Action” workshop.

2020 – 2023: Associate Professor of Finance, Rockford University

- Responsible for managing the Bloomberg Data Lab and teaching.
- Published two books, one in English and one in Turkish, along with multiple papers on FinTech, financial markets, and financial crises.
- Taught various finance and data analysis courses in both online and face-to-face formats, effectively utilizing interactive digital technology.
- Consistently received high avg. student evaluations (always more than 4.5 out of 5).

2014- Present: Erdem Consulting LLC, CEO, and Founder

- Founded and operated a small business, which provided financial consultancies, such as credit risk, and training to financial institutions.
- Planned, and developed business insight into revenue streams for the company.

- Consulted with ING Bank, Yapi Kredi Bank.

2017-2020: Visiting Professor, Rockford University

- Taught various courses at undergraduate and graduate levels, led student-focused activities, and conducted research.

2016 – 2017: Visiting Prof., Univ. of Texas at Dallas and Texas A&M U.-Commerce

- Taught several courses at undergraduate and graduate levels at both universities and led the development of the proposal of the Bloomberg lab. Created Behavioral Finance and Financial Econometrics courses for MS Finance students.

2014-2016: Assoc. Prof, V. Dean of Grad. School and Business School, Bilgi University

- Assisted the Dean in managing 30+ grad. Programs and Business School.
- Graduate school enrollment reached 2000 students.
- Launched more than 10 new academic programs, most online.
- Taught more than 20 finance, economics, and data analysis courses.

2012-2014: Director of Research, Borsa Istanbul (Istanbul Stock Exchange)

- Borsa Istanbul is Turkey's sole stock exchange, home to more than 300 companies, and had a market cap of \$220 billion as of 2014. I led a team of ten people and conducted policy-oriented research to analyze investor behavior, and market microstructure with large datasets.
- Helped build a partnership with Nasdaq OMX, which took an equity stake in Borsa Istanbul.
- Renewed the journal IMKB Review under a new title Borsa İstanbul Review and carried it to a higher standard. It is now published under the Elsevier umbrella.
- Hosted several international conferences, to promote Borsa Istanbul.

2008-2012: Assistant Professor in M.S. in Financial Economics, Bilgi University

- Managed the program and coordinated the curriculum for MS in Fin. Economics program, which has 120 grad students.
- Taught mathematics of finance and computational finance.

EDUCATION

- MS in Artificial Intelligence, University of North Texas (currently)
- Ph.D. in Economics, Universitat Autònoma de Barcelona, Spain. Dissertation: "Essays on Real Estate Finance and Social Choice Theory."
- M.A. in Economics, Bogazici University, Istanbul.
- B. S. Physics Education, Bogazici University, Istanbul.

PAPERS

1. Erdem, O., & Ashok, R. P. (2026). LLMs are not WEIRD: Comparing AI and human financial decision-making. Journal of Behavioral and Experimental Economics, 120,

102505. <https://doi.org/10.1016/j.socec.2025.102505>(ABDC Journal Quality List, Ranking: A)
2. Miah, T., Erdem, S., Fares, M., Erdem, O., Arar, Y., Greil, G., Hussain, T., & Zou, Q. (2026). Ferumoxytol-enhanced Ultrashort Echo Time MRI of Cardiovascular Stents in Patients with Congenital Heart Disease: A Feasibility Study. *Radiology: Cardiothoracic Imaging*, 8(1). <https://doi.org/10.1148/ryct.250189>
 3. Erdem, O., & Gider, Z. (2025). The pandemic puzzle: the causal impact of government stringency on housing prices. *International Journal of Housing Markets and Analysis*. <https://doi.org/10.1108/IJHMA-01-2025-0015>. (ABDC Journal Quality List, Ranking: B)
 4. Erdem, S., Erdem, O., Greil, G., Hussain, T., & Zou, Q. (2025). Accelerated Non-Contrast-Enhanced Three-Dimensional Cardiovascular Magnetic Resonance Deep Learning Reconstruction. *Reviews in Cardiovascular Medicine*, 26 (7), 37399.
 5. Erdem, S., Erdem, O., Stebbings, S., Greil, G., Hussain, T., & Zou, Q. (2025). Free-running isotropic three-dimensional cine magnetic resonance imaging with deep learning image reconstruction. *Pediatric Radiology*, 1-15.
 6. Erdem, O., Kristin, H., & Egriboyun, F. (2025). *Hallucination in AI-Generated Financial Literature Reviews: Evaluating Bibliographic Accuracy*. *International Journal of Data Science and Analytics*.
 7. Erdem, S., Hussain, T., Erdem, Mehdi MQ, Butts R, Greil, G., Alsaied T., & Zou, Q. (2025) *Magnetic Resonance Imaging–Based Psoas Muscle Volume as an Additional Risk Factor for Fontan Failure: A Prospective Cohort Study*. *Journal of the American Heart Association*, e048924
 8. Erdem O., Erdem S., Monson K. (2023). Children, Vaccines, and Financial Incentives. *International Journal of Health Economics and Management*.
 9. Erdem O. (2020). Freedom and Stock Market Performance During the COVID-19 Outbreak. *Finance Research Letters*, Vol: 36. (ABDC Journal Quality List, Ranking: A).
 10. Erdem O. Martin A. (2020). Do Religious Reminders Help You with Your Money? *International Journal of Applied Behavioral Economics*, Vol: 9(3).
 11. Brewer O., Erdem O. (2020). Does Values Activation Affect Present Bias? *International Journal of Applied Behavioral Economics*, Vol: 9(2).
 12. Yilmaz, M. K., Erdem, O., Arik, E., & Eraslan, V. (2015). Technology Upgrades in Emerging Equity Markets: Effects on Liquidity and Trading Activity. *Finance Research Letters*, 14, 87–92. (ABDC Journal Quality List, Ranking: A).
 13. Erdem, O., Varlı Y. (2014). Understanding the sovereign credit ratings of emerging markets. *Emerging Markets Review*, 20, 42–57. (ABDC Journal Quality List, Ranking: A).
 14. Erdem, O., Ceyhan E., Varlı Y. (2014). A New Correlation Coefficient for Bivariate Time Series Data. *Physica A: Statistical Mechanics and its Applications*, Vol 414, 274-284.
 15. Erdem, O., Yüksel S., Arık E. (2014). Trading Puzzle, Puzzling Trade. *İktisat İşletme ve Finans*, Vol:29, Issue: 345, 83-102.

16. Erdem O., Coşkun A., Oruç H. (2013). A Survey-Based Analysis of the Housing Market in an Emerging Economy: The Turkish Case. *Emerging Markets Finance and Trade*, December, Vol:49 Supplement 5, 59:79.
17. Erdem O., Can B. (2013). Income Groups and Long-Term Investment. *Economics Bulletin*, Vol. 33 No. 4 pp. 3014-3022.
18. Erdem O., Varli Y. (2012). Understanding the Sovereign Credit Ratings of Turkey. *Journal of Money, Investment and Banking*, Vol 23.
19. Erdem, O., Sanver, R. (2005). Minimal Monotonic Extensions of Scoring Rules. *Social Choice and Welfare*, Vol:25, 31-42.

BOOKS

- The Socioeconomic Impact of Pandemics: How COVID-19 Reshaped the World (2026). Palgrave Macmillan.
- After the Crash, Understanding the Social, Economic, and Technological Consequences of the 2008 Crisis (2020). Cham: Palgrave Macmillan.
- Boşa Gitmesin_(2018). Scala Yayıncılık
- Ben Bilmem Beynim Bilir_(2015). Mediacat Yayınları, Istanbul.

RESEARCH GRANTS

- (Received) March 2023- March 2024: “Why Did COVID-19 Wreck the Global Economy? A Macroeconomic Comparison with the 1918 Spanish Flu” supported by the Institute for Humane Studies.
- (Received) 2017-2019: “Self-control and financial decision-making?” supported by University Technology Sydney, Australia, Behavioral Lab. (Chief Investigator)
- (Received) 2012-2014: “Valuing Default and Defeasance Risks in Commercial Mortgage-Backed Securities” supported by TUBITAK-3501 (The Science & Tech. Council of Turkey) (Project Leader).

TEACHING

- Data Analytics and Computational Statistics 2 (Undergraduate, UNT)
- Data Analytics 1, 2 (Graduate, UNT)
- Applications and Deployment of Advanced Analytics (Graduate, UNT)
- Money and Banking (Undergrad, online, Rockford U.)
- Data Analysis (Undergrad, online, Rockford U.)
- Statistics (Undergrad, online, Rockford U.)
- Business Finance (MBA, Rockford U.)
- Finance (Undergrad, Rockford U.)
- Investments (MBA, in-person, Rockford U.)
- Financial Management (Grad, online and face-to-face, Texas A&M, Commerce)
- Finance for Decision Makers (Grad, online, Texas A&M, Commerce)
- Quantitative Analysis for Managers (Grad, online, Texas A&M, Commerce)
- Valuation (Grad, online, Texas A&M, Commerce)
- Macroeconomics and Financial Markets (Grad, the U. of Texas at Dallas)

- Financial Econometrics (Grad, Bilgi U., Turkey)
- Financial Econometrics (Grad, Ozyegin U., Turkey)
- Real Estate Finance (Graduate, Bilgi U.)
- Mathematics for Finance (Undergraduate, Bilgi U.)

Courses Developed

- Time Series Analysis with Machine Learning (2025-2026 Spring).

RECENT PRESENTATIONS AND SEMINARS

- 2025, 56th DSI Annual Meeting, Orlando, FL, USA
- 2025, 54th SWDSI Annual Meeting, Tulsa, OK, USA
- 2024, 53rd SWDSI Annual Meeting, Galveston, TX, USA
- 2023, Midwest Economic Association Annual Meetings, Cleveland, USA
- 2022, Illinois Economic Association Annual Meetings, Chicago, USA.
- 2022, Midwest Economic Association Annual Meetings, Minneapolis, USA
- 2021, Midwest Economic Association Annual Meetings, online
- 2019, Midwest Economic Association Annual Meetings, St. Louis, USA
- 2018, Northwestern University, Evanston, USA
- 2017, Federal Reserve Bank of Chicago, Chicago, USA
- 2016, The University of Texas at Dallas, Dallas, USA
- 2015, Tadawul, Saudi Stock Exchange, Saudi Arabia
- 2016, Koç University, Istanbul, Turkey

WORKSHOPS ORGANIZED

- AI in ACTION-1, April 23, 2024
- AI in ACTION-2, April 11, 2025
- AI in ACTION-3, April 10, 2026

REFEREEING

- Journal of Housing Research, Applied Economics, Journal of Behavioral and Experimental Finance, Harvard Business Review Advisory Council, Journal of Risk and Financial Management, North American Journal of Economics and Finance, PLOS One, Review Radical Political Economics, SAGE Open, Spanish Journal of Finance and Accounting (Revista Española de Financ. y Cont.)

RESEARCH SUPERVISION

Master Dissertations

- Turna G. "The Interaction Between the Return And Buying Appetite Of Investors" 2015, İstanbul Bilgi Üniversitesi.
- Oruç H. "A Switching Model Approach to Stock Price Modeling", 2010, İstanbul Bilgi Üniversitesi.
- Kılıvan G. "Default and Repayment Pricing for Turkey", 2009, İstanbul Bilgi Üniversitesi.
- Baş O. "Default Pricing for Retail Loans", 2009, İstanbul Bilgi Üniversitesi.

- Kivanç Ü. "Pairs' Trading in Istanbul Stock Exchange", 2009, İstanbul Bilgi Üniversitesi.

Ph.D. Dissertations

- Varlı Yusuf "Three Essays on Macroeconometrics" 2014. İstanbul Bilgi Üniversitesi.

SERVICE TO THE UNIVERSITY COMMUNITY

- Member of the PAC Committee (2023-2024)
- Member of the Business Professor Search Committee (2022)
- Member of the Committee on Academic Assess. and Planning (CAAP) (2019, 2020)
- Member of the Student Opportunity Fund Committee (2020 and 2021)
- Liberal Arts Discussion Group (2020 and 2021)
- Organizing Brown Bag Seminars (2020, 2021, 2022)
- Member of the Academic Standards Committee (2018)
- Member of the Business Professor Search Committee (2017)

SOFT SKILLS

- Developing and implementing data-based research designs and analyses.
- Collaboration and working well with team members.
- Team management.
- Mentoring juniors.
- Establishing solid relationships with academic colleagues, industry professionals, and government entities.

TECHNICAL SKILLS

DATA ANALYSIS/PROGRAMMING: Python, Stata, Eviews, Matlab, SPSS, Bloomberg.

MEMBERSHIPS: Southwest Decision Science Institute, American Economic Association, Midwest Economic Association, Illinois Economic Association, Global Burden of Disease Collaborators Network.

HOBBIES: Arduino, Violin, and Pickleball.

LANGUAGES: English, Spanish, Turkish (native)