Sorour Fatemi

College of Business

California State University, Monterey Bay

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Google Scholar Website in LinkedIn

Academic Appointments

2025-present Visiting Assistant Professor, California State University, Monterey Bay, College of Business.

Education

2019–2024 Ph.D. Management Information Systems, University of Illinois Chicago, Chicago, USA.

Dissertation Title: Emergent Abilities of LLMs in Finance

Committee Chair: Yuheng Hu

Committee Members: Sid Bhattacharyya, Yingda Lu, Stanley Sclove, Xiaomo Liu (J.P. Morgan Chase)

2013–2016 M.Sc., Industrial Engineering, University of Tehran, Tehran, Iran.

2008–2012 **B.Sc., Computer Engineering**, *Isfahan University of Technology*, Isfahan, Iran.

Research Interests

Topics Large Language Models (LLMs) and Generative AI, Multi-Agent AI Systems, Financial Technology (FinTech), Business Analytics and Decision Making, AI-driven Diagnostics

Methods Machine Learning, Deep Learning, Natural Language Processing, Econometric Modeling

Publications

Journal Articles

- 2025 S. Fatemi, Y. Hu, M. Mousavi, A Comparative Analysis of Instruction Fine-Tuning Large Language Models for Financial Text Classification, ACM Transactions on Management Information Systems, Special Issue on Impacts of Large Language Models on Business and Management.
- 2023 **E. Basak, R. Al Balawi, <u>S. Fatemi</u>, A. Tafti**, When Crisis Hits: Bike-Sharing Platforms amid the Covid-19 Pandemic, PLoS ONE, Volume 18, Issue 4.

Conference Proceedings

- 2024 **S. Fatemi, Y. Hu**, Enhancing Financial Question Answering with a Multi-Agent Reflection Framework, 5th ACM International Conference on AI in Finance (ICAIF'24).
- 2024 **S. Fatemi, Y. Hu**, FinVision: A Multi-Agent Framework for Stock Market Prediction, 5th ACM International Conference on AI in Finance (ICAIF'24).

Working Papers

- <u>S. Fatemi</u>, A. Sanatizadeh, R. Mousavi, A. Abbasi, B. Kitchens, *Multi-Agent LLMs vs. AutoML for Tabular Classification*, *Draft complete and ready for submission*.
- <u>S. Fatemi</u>, Y. Hu, Judge-Guided Monte Carlo Tree Search for Stock Trading, Data preparation and analysis complete.
- <u>S. Fatemi</u>, Y. Hu, Measuring Al Washing: LLM-Based Detection and Market Consequences, In progress.

Teaching Experience

2025- California State University, Monterey Bay.

Fall 2025: BUS 301: Principles of Business Analytics

2020–2024 University of Illinois Chicago.

Fall 2023: IDS 575: Machine Learning Statistics Summer 2023: IDS 355: Operations Management

Summer 2022: IDS 270: Introduction to Business Statistics

Spring 2022: IDS 521: Advanced Database Management

Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023: IDS 572: Data Mining for Business

 $Fall\ 2020,\ Spring\ 2021,\ Summer\ 2021,\ Fall\ 2021,\ Fall\ 2022,\ Spring\ 2023:\ IDS\ 200:\ Introduction\ to$

Management Information Systems, Lab Instructor

Fall 2020, Spring 2021: IDS 570: Statistics for Management

Fellowships & Awards

2024 Business Analytics Scholarship, University of Iowa Tippie College of Business

2019–2024 **Doctoral Scholarship and CBA Doctoral Fellowship**, Department of Information and Decision Sciences, University of Illinois Chicago

2019–2024 *Graduate Assistantship*, Department of Information and Decision Sciences, University of Illinois Chicago

Presentations & Conference Participation

- 2025 Session Chair, "Machine Learning and Generative AI", INFORMS 2025, Seattle, USA
- 2025 Guest Lecturer, "Al Agent Applications in Finance", Machine Learning Course (IDS572), University of Illinois Chicago
- 2024 Presented "A Comparative Analysis of Instruction Fine-Tuning Large Language Models for Financial Text Classification", **INFORMS 2024**, Seattle, USA
- 2024 Presented "A Comparative Analysis of Fine-Tuned LLMs and In-Context Learning of LLMs for Financial Sentiment Analysis", AAAI 2024 Workshop on AI in Finance for Social Impact, Vancouver, Canada
- 2023 Session Chair, "Applications of Deep Learning for Predictive Modeling", INFORMS 2023, Phoenix, USA
- 2023 Presented "Predicting Stock Market Trends Utilizing LLMs", INFORMS 2023, Phoenix, USA
- 2023 Presented "A Comparative Analysis of Fine-Tuned LLMs and In-Context Learning of LLMs for Financial Sentiment Analysis", ICAIF'23 Workshop on NLP and Network Analysis in Financial Applications, New York, USA

Professional Activities

Referee Activities

- 2025 Journal of Financial Data Science
- 2025 Knowledge-Based Systems
- 2023 ACM Transactions on Management Information Systems, Special Issue on Impacts of Large Language Models on Business and Management

University Service

2025-present Community & Belonging Committee Member, College of Business, California State University, Monterey Bay

2021–2022 Department Representative, Graduate Student Council, Department of Information and Decision Sciences, University of Illinois Chicago

Technical Skills

Programming Python, R, SQL, SAS, STATA

AI/ML Hugging Face, OpenAI, LangChain, AutoGen

Frameworks

AI/ML Parameter-Efficient Fine-Tuning (PEFT), Retrieval-Augmented Generation (RAG), Multi-Agent

Methods Systems

Data Science NumPy, Pandas, Scikit-Learn, TensorFlow, PyTorch

Libraries