

# NIKHIL MALIK

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## EDUCATION

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Carnegie Mellon University  
*Ph.D. in Business Technologies* Aug 2016 - Oct 2020  
Pittsburgh, PA, USA

- One of the fastest to complete PhD in the past decade at the school.

Carnegie Mellon University  
*M.S. in Industrial Administration* Aug 2016 - May 2018  
Pittsburgh, PA, USA

- GPA of 3.91 (on 4.0 scale) with a minor in Machine Learning.

Indian Institute of Technology  
*B.Tech. in Electrical Engineering* July 2007 - May 2011  
Delhi, India

- Awarded Best B.Tech project in Electrical Engineering department.

## WORK EXPERIENCE

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Marshall School of Business, USC  
*Assistant Professor of Marketing (Tenure Track)* Aug 2021 - Present  
Los Angeles, CA

- Conducting research on AI, Blockchain and other disruptive technologies in Marketing.
- Teaching graduate level course on Digital Marketing Technology.
- Providing guidance to PhD students in Marketing on dissertation.
- Disseminating research through academic and conferences, publications and popular media.
- Consulting with industry on applying AI and Blockchain technologies in Marketing.

Goldman Sachs  
*Vice President, Quantitative Strategist* Nov 2020 - July 2021  
Bengaluru, India

- Managing team of seven quantitative engineers and researchers across India, Poland and UK.
- Developing risk model to measure liquidity risk across firms \$300 Bn cash reserves.
- Designing quantitative methods and operational processes for optimizing liquidity risk.

Tepper School of Business, CMU  
*Instructor, Teaching and Research Assistant* Aug 2016 - Oct 2020  
Pittsburgh, PA

- Conducting research on Economics of AI and Blockchain technologies.
- Teaching under-graduate level course on FinTech.
- Teaching assistance for graduate level courses on - Alternative Entrepreneurship, Social Media Marketing, FinTech and Data Mining.

Goldman Sachs  
*Associate, Quantitative Strategist* June 2011 - Feb 2016  
Bengaluru, India

- Hiring, Mentoring and building data science teams across India, Singapore and UK.
- Developing Big-Data platform and driving Machine Learning adoption.
- Developing risk and unit cost models for operations division (5000+ employees and \$4Bn+ budget).

## PROFESSIONAL SERVICE

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Reviewer for academic journals handling 3-5 new papers every month across

- Management Science (Impact Factor 4.2)
- Information Systems Review (Impact Factor 5.2)
- Marketing Science (Impact Factor 2.5)
- Management Information Systems Quarterly (Impact Factor 5.4)

Reviewer for academic conferences

- Workshop on Platform Analytics
- International Conference on Information Systems
- Conference on Information Systems and Technology

Member of professional organizations

- USC Marshall School of Business, Initiative on Digital Competition (2021 - )
- Tepper School of Business, Blockchain Initiative (2018 - 2020)

Awarded Fellowship or designated as a Fellow at

- AMA-Sheth Foundation Doctoral Consortium Fellow, 2020.
- Ripple Foundation Fellow, 2019-20.
- ISMS Doctoral Consortium Fellow, 2019.

## TEACHING

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Internet Marketing (Graduate), Spring 2022, Marshall School of Business, USC.

Internet Marketing (Graduate), Spring 2023, Marshall School of Business, USC.

- Class Content: Search and Ad Tech, Algorithms, Bias and Fairness, Blockchains in Marketing.
- Class Size: 90 (MBA, MS in Marketing and other Marshall graduate programs)

FinTech (Undergraduate), Fall 2018, Tepper School of Business, CMU.

- Class Content: Blockchains, Smart Contracts, ICOs and Machine Learning in Finance.
- Class Size: 30 (Undergraduate Business Majors at Tepper School of Business)

## INVITED TALKS

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- “Economics of ML Pricing in the Housing Market”. Talk at Fox School of Business, Temple University, AI institute distinguished speakers in the virtual-zoom workshop series. Philadelphia, April 2023 (upcoming).
- “Is (Smart) Technology Really Making Us Dumber? Marketing Analytics Improves the Mental and Managerial Performance of Entrepreneurs”. Discussant at Marshall School of Business, USC. Yale China-India Insights Conference. Los Angeles, CA, Oct 2022.
- “Economics of ML Feedback Loops”. Talk at Marshall School of Business, USC, Feb 2021.
- “Economics of ML Feedback Loops”. Talk at HEC Paris, Jan 2021.
- “Economics of Collusion on Bitcoin”. Talk at Stern School of Business, NYU, Nov 2019.
- “Tutorial on Deep Reinforcement Learning”. CMU Summer Workshop on ML, Pittsburgh, PA, 2019.
- Tutorial on “*Deep Learning in Computer Vision - Methods, Interpretation, Causation and Fairness*”. INFORMS Annual Meeting, Seattle, WA, 2019.

## RESEARCH (IN PEER REVIEWED CONFERENCES)

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*“Does Machine Learning Amplify Pricing Errors in Housing Market? : Economics of ML Feedback Loops”*. Conference on Artificial Intelligence, Machine Learning, and Business Analytics, December 2022 (Cambridge, MA).

*“Unstructured Data, Econometric Models, and Estimation Bias”*. Conference on Artificial Intelligence, Machine Learning, and Business Analytics, December 2022 (Cambridge, MA).

*“Regulating eXplainable AI (XAI) may harm customers”*. Conference on Artificial Intelligence, Machine Learning, and Business Analytics, December 2022 (Cambridge, MA).

*“Unstructured Data, Econometric Models, and Estimation Bias”*. Virtual Quant Marketing Seminar, November 2022.

*“Sell Me the Blackbox! Mandating eXplainable Artificial Intelligence (XAI) May Harm Users”*. 6th International Conference of Marketing, Strategy Policy, November 2022.

*“Why does my Zestimate fluctuate? Algorithmic Pricing and Ad Revenue Incentives”*. USC Marshall Marketing Department Quant Brown Bag, Oct 2022 (Los Angeles, CA).

*“Does Machine Learning Amplify Pricing Errors in Housing Market?”*. Conference on Information Systems and Technology, October 2022 (Indianapolis, IN).

*“Economics of ML Feedback Loops”*. Marketing Science Conference, June 2022.

*“Regulating eXplainable AI (XAI) may harm customers”*. Marketing Science Conference, June 2022.

*“Why Bitcoin will fail to scale?”*. Tokenomics, Conference on Blockchain Economics, Security and Protocols, December 2021.

*“Trend Chasing in Machine Learning Home Prices”*. USC Marshall Marketing Department Quant Brown Bag, Oct 2021 (Los Angeles, CA).

*“Why Bitcoin will fail to scale?”*. Marketing Science Conference, Rome, Italy, 2019.

*“Bitcoin disruption in payments - Winners and Losers”*. Marketing Science Conference, Rome, Italy, 2019.

*“Role of naive agents in Initial Coin Offerings (ICO)”*. Marketing Science Conference, Rome, Italy, 2019.

*“When does beauty pay? A dynamic analysis of Beauty Premium”*. Marketing Science Conference, Rome, Italy, 2019.

*“Economics of collusion on Blockchain”*. Workshop on Economics of Information Security (WIES), June 2019 (Cambridge, MA).

*“Why Bitcoin will fail to scale?”*. Production and Operations Management Society (POMS) Conference, April 2019 (Minneapolis, MN).

*“Economics of collusion on Blockchain”*. Workshop on Information Systems and Economics (WISE), December 2018 (San Francisco, CA).

*“Bitcoin disruption in payments - Winners and Losers”*. Conference on Information Systems and Technology, October 2018 (Phoenix, AZ). [Best Paper nomination]

*“A Dynamic Analysis of Attractiveness Premium”*. Marketing Science Conference, June 2018 (Philadelphia, PA).

*“When Does Beauty Pay? A Large Scale Image Based Appearance Analysis on Career Transitions”*. Conference on Information Systems and Technology, October 2017 (Houston, TX). [Best Student Paper]

#### RESEARCH PUBLICATIONS (IN PEER REVIEWED JOURNALS)

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Malik N., Wei M., Appel G., Luo L. *“Blockchain Technology for Creative Industry: Ideas, Reflections, and Future Research”*. International Journal of Research in Marketing (September, 2022).

Malik N., Aseri M., Singh P.V., Srinivasan K. *“Why Bitcoin will fail to scale?”*. Management Science (January, 2022). <https://doi.org/10.1287/mnsc.2021.4271>.

Malik N., Singh P.V. *“Deep Learning in Computer Vision - Methods, Interpretation, Causation and Fairness”*. Operations Research & Management Science in the Age of Analytics. INFORMS (October, 2019). <https://doi.org/10.1287/educ.2019.0201>.

#### RESEARCH - UNDER REVIEW FOR PUBLICATION (AVAILABLE AT OPEN ACCESS REPOSITORIES)

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Wei M., Malik N. (2021). *“Unstructured Data, Econometric Models, and Estimation Bias”*. (social science research network abstractid=4113608).

Malik N., Manzoor, E.A. (2020). *“Does Machine Learning Amplify Pricing Errors in Housing Market? : Economics of ML Feedback Loops”*. (social science research network abstractid=3694922).

Malik N., Singh P.V., Srinivasan K. (2017) *“When does beauty pay? A dynamic analysis of Beauty Premium”*. (social science research network abstractid=3208162).

Mohammadi B., Malik N., Srinivasan K., Derdenger T. (2022). *“Regulating eXplainable AI (XAI) may harm customers”*. (arxiv <https://arxiv.org/abs/2209.03499>)

#### OPEDS AND RESEARCH CITED IN POPULAR PRESS

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Malik N. *“Economics of Blockchain Scaling”*. January 2023. [upcoming]

Rachel Metz. *“Zillow’s home-buying debacle shows how hard it is to use AI to value real estate”*. CNN Business, November 2021.

#### CITATIONS

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Google Scholar Citations: 49 (34 in 2022, 9 in 2021, 5 in 2020, 1 in 2019)

Social Science Research Network: 1457 Downloads

## AWARDS AND ACHIEVEMENTS

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iORB Research Publicity Initiative, USC Marshall, 2022-2023

William W. Cooper Doctoral Dissertation Award, CMU, 2021.

Dipankar and Sharmila Chakravarti Doctoral Fellowship Award 2020.

PNC Presidential Fellowship 2019-20.

Henry J. Gailliot Presidential Fellowship, CMU, 2019-20.

Ripple Foundation Fellowship, 2019-20.

Litzenberger Family Fund Award, CMU 2018.

Best Conference Paper nomination, CIST INFORMS 2018.

Best Student Paper, CIST INFORMS 2017.

William Larimer Mellon Fellowship, CMU 2016-2021.

Best Electrical Engineering Undergraduate Thesis, IIT Delhi 2011.

AIEEE (All India Engineering Entrance Examination) Top 350 Scholarship 2007-2011.

Competitive Exams Scores and Ranks

- GRE Score 333 / 340 (95+ percentile) and TOEFL Score 115/120 (98+ percentile).
- Rank 188 (99.92 percentile) in JEE (Joint Entrance Examination) 2007.
- Rank 252 (99.96 percentile) in AIEEE (All India Engineering Entrance Examination) 2007.
- 1st Rank in K.V. National Mathematics Olympiad 2005.