# Param Vir Singh

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### ACADEMIC APPOINTMENTS

### Carnegie Mellon University, Tepper School of Business

Associate Dean, Research	2024-present
Carnegie Bosch Professor of Business Technologies & Marketing	2019-present
Director, PNC Center for Financial Services Innovation	2017-2024
Carnegie Bosch Associate Professor	2016-2019
Associate Professor of Business Technologies (tenured in 2016)	2013-2019
Carnegie Bosch Junior Chair	2012-2016
Faculty Giving Chair	2010-2011
Assistant Professor of Information Systems	2008-2013

### Carnegie Mellon University, Heinz College

Courtesy Appointment 2013-present

### **EDUCATION**

Ph.D. in Business Administration, University of Washington, Seattle	2004-2008
B.E. in Chemical Engineering, Dept of Chemical Engg & Tech, PU,	1996-2000
Chandigarh	

# **HONORS**

Distinguished Fellow, INFORMS Information Systems Society	2019
Don Lehman Award in Marketing, Winner	2024
AIS Senior Scholars Best Paper in Information Systems, Winner	2024
Best Paper Award, Management Science (Marketing), Finalist	2024
Don Morrison Long Term Impact Award in Marketing, Finalist	2023
John DC Little Award for the Best Marketing Paper, Finalist	2021
Best Paper Award, Information Systems Research, Finalist	2011, 2018, 2020, 2021
Best Paper Award, Management Science (IS), Finalist	2016, 2023
TIMES Best Paper Award, Management Science, Finalist	2019, 2024
Poet & Quants Top 50 Undergraduate Professors	2018
Adobe Data Science Research Award	2017
Service Award, Information Systems Research (Associate Editor)	2017
INFORMS ISS Sandra Slaughter Early Career Award	2016
Best Student Paper Award, Informs CIST	2016, 2017, 2019
Google Online Marketing Challenge, Americas' Winner	2009-2010

### Doctoral Dissertation Awards

INFORMS Nunamaker Chen Award, Finalist (Qiaochu Wang)	2024
William Cooper Award, Winner (Qiaochu Wang)	2024
INFORMS Nunamaker Chen Award, Winner (Runshan Fu)	2022
William Cooper Award, Winner (Nikhil Malik)	2020
INFORMS Nunamaker Chen Award, Finalist (Shunyuan Zhang)	2019
William Cooper Award, Winner (Shunyuan Zhang)	2019
Herbert A. Simon Award, Winner (Elina Hwang)	2014
William Cooper Award, Winner (Yan Huang)	2013
INFORMS Nunamaker Chen Award, Winner (Yan Huang)	2013

# **EDITORIAL APPOINTMENTS**

Senior Editor, Information Systems Research	2018 - present
Associate Editor, Management Science (Entrepreneurship & Innovation)	2018 - present
Associate Editor, Management Science (Information Systems)	2023 - present &
	2013 - 2017
Associate Editor, MIS Quarterly Special Issue	2014 - 2015
Associate Editor, International Conference of Information Systems	2011 - 2015

# DOCTORAL THESIS ADVISING

# Dissertation Committee Chair/Co-chair

Liying Qiu	Ph.D. in Business Technologies	in progress
Qiaochu Wang	Ph.D. in Business Technologies & Marketing Placement: <b>New York University</b>	2024
Runshan Fu	Ph.D. in Information Systems & Marketing Placement: <b>New York University</b>	2022
Nikhil Malik	Ph.D. in Business Technologies & Marketing Placement: <b>University of Southern California</b>	2020
Shunyuan Zhang	Ph.D. in Business Technologies & Marketing Placement: <b>Harvard Business School</b>	2019
Elina Hwang	Ph.D. in Business Technologies Placement: <b>University of Washington</b>	2014
Yan Huang	Ph.D. in Information Systems Placement: <b>University of Michigan</b>	2013
Yingda Lu	Ph.D. in Business Technologies Placement: <b>Rensselaer Polytechnic Institute</b>	2012
Dissertation Committee Member		
Xiao Liu	Ph.D. in Marketing Placement: <b>New York University</b>	2015
Quan Wang	Ph.D. in Information Systems Placement: <b>Linkedin</b>	2018
Vilma Todri	Ph.D. in Information Systems Placement: <b>Emory University</b>	2016

# RESEARCH GRANTS

Uncovering the Source of Machine Bias Co-Principal Investigator CMU Block Center Grant	\$35000	2019-2020
Ripple University Blockchain Research Initiative Co-Lead Ripple Labs Inc.	\$1025000	2019-2020
CMU Coin: A Cryptocurrency Testbed Co-Lead Various Sources.	\$135000+	2018-2020
Photo Feature X is Worth Y Dollars Co-Principal Investigator Adobe Data Science Research Award	\$50000	2017-2018
A Structured Analysis of Unstructured Big Data Principal Investigator Carnegie Bosch Institute	\$7250	2013-2014
Crowdsourcing New Product Ideas Principal Investigator Center for Future of Work	\$25000	2011-2012
Social Networks and Knowledge Transfer Principal Investigator Center for Future of Work	\$10000	2010-2011
Developer Learning Dynamics in Open Source Principal Investigator Center for Organizational Learning, Innovation, and Performance	\$5000	2009-2010
Open-Source Software License Choice Principal Investigator Berkman Faculty Development Fund	\$4000	2008-2009

# RESEARCH CENTER GRANTS

PNC Center for Financial Services Innovation As the Center Director Led the	\$5500000	2022-2027
Renewal Negotiations with PNC		

#### **PUBLICATIONS**

- 1. Runshan Fu, Yan Huang, Nitin Mehta, Param Vir Singh, Kannan Srinivasan. Unequal Impact of Zestimate on the Housing Market. *Marketing Science*, *forthcoming*.
- 2. Nikhil Malik, Param Vir Singh, Kannan Srinivasan. When Does Beauty Pay? A Large Scale Image Based Appearance Analysis on Career Transitions, *Information Systems Research*, 35(4), 2024, 1524-1545.
  - **Best Student Paper Award**, Winner at Conference on Information Systems and Technology
- 3. Qiaochu Wang, Yan Huang, Stefanus Jasin, Param Vir Singh. Algorithmic Transparency with Strategy Users. *Management Science*, 69(4), 2023, 2297-2317.
  - AIS Senior Scholars' Best Paper in Information Systems Award 2024, Winner
  - **Best Student Paper Award**, *Winner* at Conference on Information Systems and Technology
- 4. Nikhil Malik, Manmohan Aseri, Param Vir Singh, Kannan Srinivasan. Why Bitcoin will Fail to Scale? **Management Science**, 68(10), 2022, 7065-7791.
- 5. Shunyuan Zhang, Dokyun Lee, Param Vir Singh, Tridas Mukhopadhyay. Demand Interactions in Sharing Economies: Evidence from Natural Experiment Involving Airbnb and Uber/Lyft. *Journal of Marketing Research*, 59 (2), 2022, 374-391.
  - Don Lehman Award 2024, Winner.
- 6. Runshan Fu, Manmohan Aseri, Param Vir Singh, Kannan Srinivasan. "Un"fair Machine Learning Algorithms, **Management Science**, 68(6), 2022, 4173-4195.
  - Management Science (IS) Best Paper, Finalist.
- 7. Shunyuan Zhang, Dokyun Lee, Param Vir Singh, Kannan Srinivasan, What Makes a Good Image? Airbnb Demand Analytics Leveraging Interpretable Image Features. *Management Science*, 68(8), 2021, 5644-5666.
  - Best Published Paper in Management Science (Marketing)
  - **Best Student Paper Award**, Winner at Conference on Information Systems and Technology
- 8. Shunyuan Zhang, Kannan Srinivasan, Param Vir Singh, Nitin Mehta. AI Can Help Address Inequity If Companies Earn Users' Trust, *Harvard Business Review*, September 17, 2021.

- 9. Shunyuan Zhang, Nitin Mehta, Param Vir Singh, Kannan Srinivasan. Can an AI Algorithm Mitigate Racial Economic Inequality? An Analysis in the Context of Airbnb, Frontiers in **Marketing Science**, 40(5), 2021, 813-820.
  - **John DC Little Award**, Finalist.
- 10. Runshan Fu, Yan Huang, Param Vir Singh. Crowd, Lending, Machine, and Bias, *Information Systems Research*, 32(1), 2021, 72-92.
  - Information Systems Research, Best Paper 2021, Finalist.
- 11. Runshan Fu, Yan Huang, Param Vir Singh. AI and Algorithmic Bias: Source, Detection, Mitigation and Implications, **Tutorials in Operations Research** 2020 at Informs.
- 12. Georgia Vilma Todri, Anindya Ghose, Param Vir Singh. Trade-offs in Online Advertising: Advertising Effectiveness and Annoyance Dynamics Across the Purchase Funnel, *Information Systems Research*, 31(1), 2020, 102-125.
  - Information Systems Research, Best Paper 2020, Finalist.
- 13. Nikhil Malik and Param Vir Singh. Deep Learning for Computer Vision: Methods, Fairness, Causality and Interpretability, **Tutorials in Operations Research** 2019 at Informs.
- 14. Elina Hwang, Param Vir Singh, Linda Argote. Jack of All, Master of Some: Knowledge Network and Innovation, *Information Systems Research*, 30(2) 2019, 389-410.
  - INFORMS TIMES Best Paper Award 2024, Finalist.
- 15. Shunyuan Zhang, Param Vir Singh, Anindya Ghose. A Structural Analysis of the Role of Superstars inCrowdsourcing Contests. *Information Systems Research*, 30(1) 2019, 15-33.
- 16. Quan Wang, Beibei Li, Param Vir Singh. Copycats versus Original Mobile Apps: A Machine Learning Detection Method and Empirical Analysis. *Information Systems Research*, 29(2) 2018, 273-291.
  - Information Systems Research, Best Paper 2018, Finalist.
- 17. Yingda Lu, Param Vir Singh, Baohong Sun. Is Core-Periphery Network Good for Knowledge Sharing? A StructuralModel of Network Formation on a Crowdsourced Customer Support Forum, **Management Information Systems Quarterly**, 41(2) 2017, 607-628.
- 18. Xiao Liu, Param Vir Singh, Kannan Srinivasan. A Structured Analysis of Unstructured Big Data Leveraging Cloud Computing, *Marketing Science*, 35(3) 2016, 363-388.
  - Don Morrison Long Term Impact Award in Marketing 2023, Finalist.

- 19. Ray Reagans, Param Vir Singh and Ramayya Krishnan. Forgotten Third Parties: Analyzing the Contingent Association between Unshared Third Parties, Knowledge Overlap and Knowledge Transfer Relationships withOutsiders, **Organization Science**, 26(5) 2015, 1400-1414.
- 20. Elina Hwang, Param Vir Singh, Linda Argote. Knowledge Sharing in Online Knowledge Communities: Weakening of Categorical and Strengthening of Expertise Similarity with Experience, *Organization Science*, 26(6) 2015, 1593–1611.
- 21. Yan Huang, Param Vir Singh, Anindya Ghose. A Structural Model of Employee Behavioral Dynamics in Enterprise Social Media, *Management Science*, 61(12) 2015, 2825-2844.
- 22. Liye Ma, Alan Montgomery, Param Vir Singh, Michael Smith, An Empirical Analysis for the Impact of Pre-release Movie Piracy on Box Office Revenue, *Information Systems Research*, 25(3) 2014, 590-603.
- 23. Yan Huang, Param Vir Singh, Kannan Srinivasan. Crowdsourcing New Product Ideas under Consumer Learning, with Yan Huang and Kannan Srinivasan. **Management Science**, 60(9) 2014, 2138–2159.
  - INFORMS Times Best Paper Award 2019, Finalist.
  - Management Science (IS) Best Paper, Finalist.
- 24. Param Vir Singh, Nachiketa Sahoo, Tridas Mukhopadhyay. How to Attract and Retain Readers in Enterprise Blogging? *Information Systems Research*, 25(1), 2014, 35–52.
- 25. Yingda Lu, Kinshuk Jerath, Param Vir Singh. The Emergence of Opinion Leaders in a Networked Online Community: A Dyadic Model with Time Dynamics and a Heuristic for Fast Estimation, *Management Science*, 2013, 59(8), 1783-1799.
- 26. Param Vir Singh, and Corey Phelps. Networks, Social Influence and the Choice among Competing Innovations: Insights from Open Source Software Licenses, *Information Systems Research*, 2013, 24(3), 539-560.
- 27. Nachiketa Sahoo, Param Vir Singh, and Tridas Mukhopadhyay. A Hidden Markov Model of Collaborative Filtering. **Management Information Systems Quarterly**, 2012, 36(4), 1329-1356.
- 28. Rohit Aggarwal, Ram Gopal, Ramesh Sankaranarayanan, and Param Vir Singh. Blog, Blogger, and the Firm: Can Negative Posts by Employees Lead to Positive Outcomes. *Information Systems Research*, 2012, 23(2), 306-322
- 29. Param Vir Singh, Yong Tan, and Nara Youn. A Hidden Markov Model of Developer Learning Dynamics in Open Source Software Projects. *Information Systems Research*, 2011, 22(4), 790-807.

- 30. Tridas Mukhopadhyay, Param Vir Singh, and Seung Hyun Kim. Learning Curves of Agents with Diverse Skills in Information Technology Enabled Physician Referral Systems. *Information Systems Research*, 2011, 22(3), 586-605.
  - Information Systems Research, Best Paper 2011, Finalist.
- 31. Param Vir Singh, Yong Tan, and Vijay Mookerjee. Network Effects: The Influence of Structural Social Capital on Open Source Software Project Success. **Management Information Systems Quarterly**, 2011, 35(4), 813-829.
- 32. Param Vir Singh. The Small World Effect: The Influence of Macro Level Properties of Developer Collaboration Networks on Open Source Project Success. **ACM Transactions of Software Engineering and Methodology**, 2010, 20 (2), 6:1-6:27.
- 33. Param Vir Singh and Yong Tan. Developer Heterogeneity and Formation of Communications Networks in Open Source Software Projects. *Journal of Management Information Systems*, 2010, 27(3) pp 179-210.

#### SELECT WORKING PAPERS

- 1. Qiaochu Wang, Yan Huang, Param Vir Singh. Algorithmic Lending, Competition, and Strategic Information Disclosure. Minor revision at *Marketing Science*.
- 2. Shunyuan Zhang, Nitin Mehta, Param Vir Singh, Kannan Srinivasan. Do Lower Quality Images Lead to Greater Demand at Airbnb? Revising for 2<sup>nd</sup> round of review at **Marketing Science**.
- 3. Liying Qiu, Yan Huang, Param Vir Singh, Kannan Srinivasan. Does Personalization in Product Rankings Facilitate or Mitigate Algorithmic Pricing Collusion? Under 2<sup>nd</sup> round of review at *Marketing Science*.
- 4. Qiaochu Wang, Yan Huang, Param Vir Singh, Kannan Srinivasan. Algorithms, Artificial Intelligence and Simple Rule Based Pricing. Under review at **Management Science**.
- 5. Qiaochu Wang, Yan Huang, Param Vir Singh, Kannan Srinivasan. Wrong Model or Wrong Practices? Mis-specified Demand Model and Algorithmic Bias in Personalized Pricing.
- 6. Liying Qiu, Shunyuan Zhang, Param Vir Singh. Are Simpler Machine Learning Models Fairer? Evidence from a Large-scale Gamification Experiment in Banking.

7. Liying Qiu, Param Vir Singh, Kannan Srinivasan. How Much Should We Trust LLM Results for Marketing Research?

# INVITED KEYNOTE PRESENTATIONS

2024	Workshop on AI and Economics, Luiss University, Rome, Italy
2023	Deans Seminar at Johnson College of Business, Cornell University, Ithaca, NY
2022	Conference on AI, Machine Learning, & Business Analytics, HBS,
2021	Conference on Digital Marketing and Machine Learning, virtual.
2020	Conference on Digital Marketing and Machine Learning, virtual
2019	Family Weekend, Carnegie Mellon University, Pittsburgh, PA.
2019	Emerging Research Topics in Technology and Operations, Indiana University
2021	Conference on Digital Marketing and Machine Learning, virtual.
2019	Machine Learning and Marketing Conference, Pittsburgh, PA.
2019	Digital Marketing Conference, Pittsburgh, PA.
2019	Money Transmitter Regulators Association Luncheon, Pittsburgh, PA.
2018	INFORMS Organization Science Conference, Salt Lake City, UT.
2018	Machine Learning and Marketing Conference, Philadelphia, PA.
2018	AI and Business Conference at University of Florida, Gainsville, FL.
2017	Technology and Business Industry Forum, University of Michigan, Ann Arbor, MI.
2017	Deep Learning at INFORMS/CIST.

# INVITED PANEL DISCUSSANT/MODERATOR

2024	Editor's Panel, Conference of Information Systems and Technology, Seattle, WA
2022	Machine Learning, Structural Models or Both?, Conference on AI, ML & Business
	Analytics, HBS, Boston, MA.
2021	Editors Panel, Workshop on Information Systems and Technology, Austin, TX.
2021	Editors Panel, Workshop on Machine Learning and Marketing, Philadelphia, PA.
2020	Wither Wise, Workshop on Information System and Economics, virtual.
2018	Designing Intelligence: Shaping AI and Society, Intersect, Pittsburgh, PA.

### **INVITED SEMINAR PRESENTATIONS**

2024 University of Florida, Gainesville, FL
2024 University of Texas at Dallas, Dallas, TX.
2024 Cornell University, Ithaca, NY.

- 2023 University of Minnesota, Minneapolis, MN.
- 2023 University of Texas, Austin, TX.
- 2023 Penn State University, PA
- 2023 Emory University, Atlanta, GA.
- 2023 McGill University, Montreal, Canada.
- 2022 University of Southern California, Los Angeles, CA.
- 2021 University of Maryland, College Park, MD.
- 2020 University of Michigan, Ann Arbor, MI.
- 2019 Purdue University, West Lafayette, IN.
- 2019 Boston University, Boston, MA.
- 2018 Institute of Insights, Atlanta, GA.
- 2018 Georgia State University, Atlanta, GA.
- 2017 University of Pennsylvania, Philadelphia, PA.
- 2017 University of Minnesota, Minneapolis, MN.
- 2017 University of Texas, Austin, TX.
- 2016 Seoul National University, Seoul, South Korea.
- 2015 Seoul National University, Seoul, South Korea.
- 2014 New York University, New York.
- 2014 University of Washington, Seattle, WA.
- 2014 University of Texas, Dallas, TX.
- 2013 Temple University, Philadelphia, PA.
- 2013 Georgia Tech University, Atlanta, Georgia.
- 2013 Michigan State University, Lansing, MI.
- 2011 University of Maryland, College Park, MD.
- 2011 Purdue University, West Lafayette, IN.
- 2009 University of Minnesota, Minneapolis, MN.
- 2009 University of Pittsburgh, Pittsburgh, PA.

#### MEDIA COVERAGE

#### Blockchain/Fintech

- Move over Bitcoin. There is a new cryptocurrency in town. Pittsburgh Post Gazette
- CMU's new cryptocurrency, venture capitalists taking pitches and more: 5 things happening in Pittsburgh tech this week. **Next Pittsburgh**
- Tepper Case Challenge deals with CMU Coin. Tartans
- Show Me the Money: The Time is Ripe for Understanding Cryptocurrencies.

#### Carnegie Mellon University

- JPMorgan's move into crypto puts the rest of the industry on notice. CNN
- Blockchain: The end of banking as we know it? **ZDNet**
- Bitcoin Could Be a Problem for U.S. Security Clearances. Bloomberg
- 6 Surprising Ways Consumers Are Using Cryptocurrencies. US News & World Report
- Elon Musk Endorses Bitcoin. **Investing**

Artificial Intelligence, Consumer Data, Antitrust, Algorithmic Bias and Fair ML

- Research (Zhang et al. (2021) Marketing Science) Cited in the **2023 Economic Report of the President** transmitted to Congress- March 2023.
- White Airbnb Hosts Earn More. Can AI Shrink The Racial Gap? Forbes
- Airbnb pricing algorithm led to increased racial disparities, study finds. Financial
   Times
- Research (Zhang et al. (2021) Marketing Science) Cited by **American Civil Liberties Union**.
- How Airbnb failed its own anti-discrimination team—and let racial disparities slip through the cracks. **Tech Brew**
- No, Airbnb's Smart Pricing algorithm does not discriminate against black hosts. But.
   RentalscaleUp
- Airbnb's 'Smart Pricing' Algorithm For Hosts Made Racial Disparities Worse.
   Moquldum
- Airbnb algorithm linked to racial disparities in pricing. **The GRIO**
- Racial revenue gap narrowed with AirBnb pricing algorithm, but only for those who adopt it. **PHYS.org**
- AI Can Help Address Inequity If Companies Earn Users' Trust, Harvard Business Review
- Can Gen AI Powered Search Overtake Google? Tepperspectives
- Assessing the fallout of Google's ad tech antitrust trial. **Digiday**
- Google's Cookie Conundrum: Privacy and Ads. Tepperspectives
- Algorithmic Pricing in the Spotlight: Understanding the FTC's Case Against Amazon. Carnegie Mellon University.
- How to Begin Integrating AI in to Data Center Operations? Information Week
- 7 Ways AI will Revolutionize Business Travel. CIO
- Why Automation and AI are Cool, Until They are Not. Information Week
- Mo' Data, Mo' Problems: Information Systems Wrestle with Corporate Knowledge Loss. Pittsburgh Post Gazette
- Pittsburgh Zoo Reaches Out to Millennials with New App. Pittsburgh Post Gazette
- Getting Started with Intent-Based Networking. Network Computing
- Conversational AI: How It Works and Where It's Headed. Information Week
- How AI can improve network capacity planning? Network World
- 7 ways to position IT for success in 2020. CIO

#### Copyrights/Piracy/Copycats

- Will "Expendables 3" Pre-release Piracy Hurt Box-Office Revenue? Variety
- Suspects behind Expendables 3 leak arrested in UK. **BBC**
- 2.2 Million Download Leaked Copy of 'The Expendables 3' Before Theater Release. **Wall Street Journal**
- How Piracy Is Still Hurting The Filmmakers And Artists You Admire? Forbes
- The Expendables 3 Leak and the Financial Effect of Pre-Release Piracy. FF.org
- How Much Will the Piracy of Expendables 3 Cost Lionsgate? The Warp

• Imitation is the most sincere form of flattery, unless you are an app developer. **Science Daily** 

### Crowdsourcing/Open Source

- The Secret of Open source Project Success. **CIO Insights**.
- Reducing Crowdsourcing Clutter. Ideaconnection
- 3 Ways to Improve the Ideas You Get from Crowdsourcing. **Getsponge.com**
- Carnegie Mellon Defends Crowdsourcing. Crowdsourcing.org
- Listen Up! Two Way Communication Key Lesson in Crowdsourcing. Wired
- Studies Refutes Three Major Criticisms of Crowdsourcing. Ideaconnection
- Crowdsourcing Can Generate Valuable Ideas for Firms. Crowdsourcing
- New CMU Study Shows How Firms Can Successfully Crowdsource High Potential New Product Ideas From Consumers. Yahoo Finance
- Reducing Crowdsourcing Clutter. IdeaConnection

### **CONFERENCE CO-CHAIR**

2017	Structural Modeling Applications of Research on Technology, Seattle, WA.
2015	Informs Annual Meeting, Information Systems Cluster Chair, Philadelphia, PA.
2015	Structural ModelingApplications of Research on Technology, Pittsburgh, PA.
2014	Structural Modeling Applications of Research on Technology, Pittsburgh, PA.
2012	Workshop on Information Systems and Economics, Orlando, FL.
2012	Conference on Information Systems and Technology, Phoenix, AZ.
2011	Informs Annual Meeting, Information Systems Cluster Chair, Charlotte, NC.

### SERVICE CARNEGIE MELLON UNIVERSITY

2024-now	Associate Dean, Research
2024-now	Head, Dean's Research Committee
2022-2023	Member, Associate Dean DEI Search Committee.
2022-2023	Member, Marketing Faculty Search Committee.
2022-2023	Member, Business Technology Faculty Search Committee.
2019-2020	Chair, Business Technology Faculty Search Committee.
2020-2022	Member, Tepper Marketing Committee.
2019-2020	Member, Dean Search Committee.
2017-2019	Member, Tepper Website Committee.
2017-2018	Chair, Business Technology Faculty Search Committee.
2017-2020	Member, Master of Science in Business Analytics Program Planning.
2016-2017	Member, Master of Science in Business Analytics Curriculum Committee.
2016-2017	Member, Strategic Planning for Research Committee.
2016-2017	Member, Dean Performance Evaluation Committee.

2016-2017	Chair, Business Technology/Business Analytics Faculty Search Committee.
2013-2016	Member, Carnegie Mellon University Non-Tenure Committee.
2012-2014	Member, Berkman Faculty Career Development Fund Committee.
2014-2020	Member, PhD Affairs Committee.
2013-2015	Member, Masters Education Affairs Committee.
2013-2014	Member, Undergraduate Curriculum Review Committee.
2014-2015	Member, Business Analytics Faculty Search Committee.
2014-2015	Member, Business Technologies Faculty Search Committee.
2013-2014	Member, Business Analytics Faculty Search Committee.
2011-2012	Member, Business Technologies Faculty Search Committee.
2010-2011	Member, Business Technologies Faculty Search Committee.
2008-2009	Member, Business Technologies Faculty Search Committee.
2008-2016	Coordinator, Business Technologies Seminar Series.

### TEACHING CARNEGIE MELLON UNIVERSITY

- Digital Marketing and Social Media Strategy (M.B.A., OH-M.B.A., B.B.A.)
- Data Visualization (OH-M.B.A.)
- Data Visualization and Exploration (OH-M.S.B.A.)
- Fintech (M.B.A., OH-M.B.Ā.)
- Strategic Uses of Information Technology (M.B.A., B.B.A.)
- System Analysis and Design (B.B.A.)
- Information Resource Management (B.B.A.)
- Seminar on Social Networks Analysis (Ph.D.)
- Seminar on Estimating Structural Models (Ph.D.)
- Seminar on Generative AI Economics and Social Aspects (Ph.D.)
- IT for Finance (B.B.A.)