

# Pooyan Kazemian

Curriculum Vitae (7/22/2025)

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## Employment and Experience

### Academic

07/25-	Assistant Professor	Innovation, Technology and Operations (ITO), Rady School of Management	University of California, San Diego
07/25-	Assistant Professor	Herbert Wertheim School of Public Health and Human Longevity Science	University of California, San Diego
07/20-06/25	Assistant Professor	Department of Operations, Weatherhead School of Management	Case Western Reserve University
07/17-06/20	Instructor	Department of Medicine	Harvard Medical School
07/16-07/17	Research Fellow	Department of Medicine	Harvard Medical School

### Industry

02/17-06/20	Research Scientist	Department of Medicine	Massachusetts General Hospital
07/16-02/17	Research Fellow	Department of Medicine	Massachusetts General Hospital
06/15-04/16	Operations Research Intern	Department of Health Sciences Research	Mayo Clinic
05/12-08/12	Operations Research Intern	Department of Health Sciences Research	Mayo Clinic

## Education

2016	Doctor of Philosophy (GPA: 4.0 / 4.0)	Industrial and Operations Engineering	University of Michigan
2011	Master of Science (GPA: 4.0 / 4.0)	Industrial and Systems Engineering	Rutgers University
2009	Bachelor of Science ( <i>summa cum laude</i> )	Industrial Engineering	University of Tehran

## Publications

### Operations and Analytics Publications (A)

\* = PhD student/mentee at the time research was conducted

\*\* = Industry/clinical collaborator

- A11. Keyvanshokooh E\*, Zhalechian M, Shi C, Van Oyen MP, **Kazemian P**. Contextual learning with online convex optimization: theory and application to chronic diseases. **Management Science**. Published online on May 02, 2025.
- ♣ Finalist for the 2022 POMS CHOM Best Paper Award
  - ♣ Finalist for the 2021 INFORMS MSOM Best Paper Award
  - ♣ Finalist for the 2021 INFORMS Health Application Society Student Paper Competition
- A10. Keyvanshokooh E\*, Fattahi M, Freedberg K\*\*, **Kazemian P**. Mitigating the COVID-19 pandemic through data-driven resource sharing. **Naval Research Logistics (NRL)**. 2024 Feb 1.
- ♣ Ranked within the top 10% of most-viewed papers published by NRL in that year.
- A9. Zokaeinikoo M\*, **Kazemian P**, Mitra P. Interpretable hierarchical deep learning model for noninvasive Alzheimer's disease diagnosis. **INFORMS Journal on Data Science**. 2023 Oct;2(2):183-96.
- A8. Keyvanshokooh E\*, **Kazemian P**, Fattahi M, Van Oyen MP. Coordinated and priority-based surgical care: An integrated distributionally robust stochastic programming approach. **Production and Operations Management** – 2022 April;31(4):1510-1535
- A7. **Kazemian P**, Helm JE, Lavieri MS, Stein JD\*\*, Van Oyen MP. Dynamic monitoring and control of irreversible chronic diseases with application to glaucoma. **Production and Operations Management**. 2019 May;28(5):1082-1107. PMID: 31485154.
- ♣ Showcased at the American Academy of Ophthalmology meeting (attended by over 20,000 ophthalmologists) as the first mentioned of the top 4 “ophthalmology advances and technologies to watch in the next year” with a companion article in *Ophthalmology Times* journal
  - ♣ Highlighted at the American Glaucoma Society meeting as “future of glaucoma care”
  - ♣ 2016 POMS College of Healthcare Operations Management Paper Competition (1<sup>st</sup> place)
  - ♣ 2015 Katta Murty Prize for the Best Research Paper on Optimization (1<sup>st</sup> place)
  - ♣ 2015 INFORMS IBM Service Science Best Student Paper Award (honorary mention)
- A6. Zokaeinikoo M\*, **Kazemian P**, Mitra P, Kumara S. AIDCOV: An interpretable artificial intelligence model for detection of COVID-19 from chest radiography images. **ACM Transactions on Management Information Systems**. 2021 Dec 12(4):1-20.
- A5. **Kazemian P**, Costantini S\*, Neilan AM\*\*, Resch SC, Walensky RP\*\*, Weinstein MC, Freedberg KA\*\*. A novel method to estimate the indirect community benefit of HIV interventions using a microsimulation model of HIV disease. **Journal of Biomedical Informatics**. 2020 Jun 8:103475. PMID: 32526280.
- A4. **Kazemian P**, Sir MY\*\*, Van Oyen MP, Lovely JK\*\*, Larson DW\*\*, Pasupathy KS\*\*. Coordinating clinic and surgery appointments to meet access service level for elective surgery. **Journal of Biomedical Informatics**. 2017 Feb;66:105-115. PMID: 27993748
- A3. **Kazemian P**. Stochastic control and optimization methods for chronic disease monitoring and control, hospital staffing, and surgery scheduling. Ph.D. thesis, Department of Industrial and

Operations Engineering, University of Michigan, Ann Arbor, MI; 2016.

- A2. **Kazemian P**, Dong Y\*\*, Rohleder TR\*\*, Helm JE, Van Oyen MP. An IP-based healthcare provider shift design approach to minimize patient handoffs. **Health Care Management Science**. 2014 Mar;17(1):1-14. PMID: 23624640.
- A1. Azadeh MA, Shoja BM, **Kazemian P**, Hojati ZT. A hybrid ant colony computer simulation approach for optimum planning and control of maritime traffic. **International Journal of Industrial and Systems Engineering**. 2013; 15:69-89.

### Medical Publications (M)

The impact factor of journals was recorded at the time of publication.

- M16. Becker JE, Shebl FM, Losina E, Wilson A, Levison JH, Donelan K, Fung V, Trieu H, Panella C, Qian Y, **Kazemian P**, Bird B, Skotko BG, Bartels S, Freedberg KA. Using simulation modeling to inform intervention and implementation selection in a rapid stakeholder-engaged hybrid effectiveness-implementation randomized trial. **Implementation Science Communications**. 2024 Jun 24;5(1):70.  
♣ Journal impact factor: 8.8
- M15. Amick AM, Eskibozkurt EG, Hosek SG, Flanagan CF, Landovitz RJ, Jin EY, Wilson CM, Freedberg KA, Weinstein MC, **Kazemian P**, Paltiel AD, Ciaranello AL, Neilan AM. Daily oral HIV pre-exposure prophylaxis among young men who have sex with men in the United States: Cost-saving at generic drug price. **Clinical Infectious Diseases**. 2024 Feb 15;78(2):402-10.  
♣ Journal impact factor: 11.8
- M14. Luz PM, Deshpande V, **Kazemian P**, Scott JA, Shebl FM, Spaeth H, Pimenta C, Stern M, Pereira G, Struchiner CJ, Grinsztejn B, Veloso VG, Freedberg KA. Impact of pre-exposure prophylaxis uptake among gay, bisexual, and other men who have sex with men in urban centers in Brazil: a modeling study. **BMC Public Health**. 2023 Jun 13;23(1):1128. PMID: 37308858.  
♣ Journal impact factor: 4.5
- M13. **Kazemian P**, Ding DD, Scott JA, Feser MK, Biello K, Thomas BE, Dange A, Bedoya CA, Balu V, Rawat S, Kumarasamy N, Mimiaga MJ, O'cleirigh C, Weinstein MC, Kumar JP, Kumar S, Mayer KH, Safren SA, Freedberg KA. The cost-effectiveness of a resilience-based psychosocial intervention for HIV prevention among men who have sex with men in India. **AIDS**. 2022 Apr. PMID: 35471644.  
♣ Journal impact factor: 4.5
- M12. Losina E, Leifer V, Millham L, Panella C, Hyle EP, Mohareb AM, Neilan AM, Ciaranello AL, **Kazemian P**<sup>†</sup>, Freedberg KA<sup>†</sup>. College campuses and COVID-19 mitigation: clinical and economic value. **Annals of Internal Medicine**. 2021 Apr;174(4):472-83. PMID: 33347322.  
† Kazemian and Freedberg contributed equally to this work  
♣ Journal impact factor: 21.3
- M11. Reddy KP, Shebl FM, Foote JH, Harling G, Scott JA, Panella C, Fitzmaurice KP, Flanagan C, Hyle EP, Neilan AM, Mohareb AM, Bekker LG, Lessells RJ, Ciaranello AL, Wood R, Losina E, Freedberg KA, **Kazemian P**<sup>†</sup>, Siedner MJ<sup>†</sup>. Cost-effectiveness of public health strategies for COVID-19 epidemic control in South Africa: a microsimulation modelling study. **Lancet Global Health**. 2021 Feb 1;9(2):e120-9. PMID: 32637979.  
† Kazemian and Siedner contributed equally to this work  
♣ Journal impact factor: 21.6

- M10. Cromer S, Wexler DJ<sup>†</sup>, **Kazemian P**<sup>†</sup>. Correlates of analog vs human basal insulin use among individuals with type 2 diabetes: A cross-sectional study. **Diabetes Research and Clinical Practice**. 2021 Apr 19;108825. PMID: 33887352.  
<sup>†</sup> Kazemian and Wexler contributed equally to this work  
♣ Journal impact factor: 4.2
- M9. Baggett TP, Scott JA, Le MH, Shebl FM, Panella C, Losina E, Flanagan C, Gaeta JM, Neilan AM, Hyle EP, Mohareb AM, Reddy KP, Siedner MJ, Harling G, Weinstein MC, Ciaranello A, **Kazemian P**<sup>†</sup>, Freedberg KA<sup>†</sup>. Clinical outcomes, costs, and cost-effectiveness of strategies for adults experiencing sheltered homelessness during the COVID-19 pandemic. **JAMA Network Open**. 2020 Dec 1;3(12):e2028195. PMID: 32817967.  
<sup>†</sup> Kazemian and Freedberg contributed equally to this work  
♣ Journal impact factor: 5.0
- M8. DeRoos L, Nitta K, Lavieri MS, Van Oyen MP, **Kazemian P**, Andrews CA, Sugiyama K, Stein JD. Comparing perimetric loss at different target intraocular pressures for patients with high tension and normal tension glaucoma. **Ophthalmology Glaucoma**. 2020 Sep 17;S2589-4196(20)30254-4. PMID: 32950753.
- M7. Neilan AM, Losina E, Bangs AC, Flanagan C, Panella C, Eskibozkurt GE, Mohareb AM, Hyle EP, Scott JA, Weinstein MC, Siedner MJ, Reddy KP, Harling G, Freedberg KA, Shebl FM, **Kazemian P**<sup>†</sup>, Ciaranello AL<sup>†</sup>. Clinical impact, costs, and cost-effectiveness of expanded SARS-CoV-2 testing in Massachusetts. **Clinical Infectious Diseases**. 2020 Sep 18;ciaa1418. PMID: 32945845.  
<sup>†</sup> Kazemian and Ciaranello contributed equally to this work  
♣ Journal impact factor: 9.1
- M6. Neilan AM, Bulteel AJ, Hosek SG, Foote JH, Freedberg KA, Landovitz RJ, Walensky RP, Resch SC, **Kazemian P**, Paltiel AD, Weinstein MC. Cost-effectiveness of frequent HIV screening among high-risk young men who have sex with men in the United States. **Clinical Infectious Diseases**. 2020 Jul 30;ciaa1061. PMID: 32730625.  
♣ Journal impact factor: 9.1
- M5. **Kazemian P**, Costantini S, Kumarasamy N, Paltiel AD, Mayer KH, Chandhiok N, Walensky RP, Freedberg KA. The cost-effectiveness of Human Immunodeficiency Virus (HIV) preexposure prophylaxis and HIV testing strategies in high-risk groups in India. **Clinical Infectious Diseases**. 2020 Feb 3;70(4):633-42. PMID: 30921454.  
♣ Journal impact factor: 9.1  
♣ Press coverage from major news outlets, including MSN, Yahoo Finance, Health World, EurekAlert, Medical Xpress, ANI News, and Business Standard  
♣ Top 5% of all research outputs scored by Altmetric  
♣ High Attention Score compared to outputs of the same age (98th percentile)
- M4. **Kazemian P**, Shebl FM, McCann N, Walensky RP, Wexler DJ. Evaluation of the cascade of diabetes care in the United States, 2005-2016. **JAMA Internal Medicine**. 2019;179(10):1376-1385. PMID: 31403657.  
♣ Journal impact factor: 20.8  
♣ Cited five times in the 2020 American Diabetes Association's (ADA) Standards of Medical Care in Diabetes (Clinical Guidelines)  
♣ Featured health news on National Public Radio (NPR) News Station on August 12<sup>th</sup>, 2019,

with a companion full interview published [online](#)

- ♣ Press coverage from major news outlets, including the New York Times, Reuters Health, HealthDay News, WebMD, Chain Drug Review, Healio, Medical Research, Science Codex, EurekAlert, Medical Xpress, and USA Today
- ♣ Special coverage and invited interview with WinkNews TV in Florida on findings of this study and the state of diabetes care in the U.S.
- ♣ Featured on INFORMS podcast, Resoundingly Human (September 5, 2019, episode)
- ♣ Top 5% of all research outputs scored by Altmetric
- ♣ High Attention Score compared to outputs of the same age (99th percentile)

- M3. **Kazemian P**, Wexler DJ, Fields NF, Parker RA, Zheng A, Walensky RP. Development and validation of PREDICT-DM: A new microsimulation model to project and evaluate complications and treatments of type 2 diabetes mellitus. ***Diabetes Technology and Therapeutics***. 2019 Jun;21(6):344-355. PMID: 31157568.  
♣ Journal impact factor: 6.1
- M2. **Kazemian P**, Shebl FM, McCann N, Walensky RP, Wexler DJ. Persistent treatment gaps and disparities in US diabetes mellitus care in 2005-2016, ***Diabetes***. 2019 Jun; 68(Supplement 1). doi: 10.2337/db19-344-OR  
♣ Journal impact factor: 7.3
- M1. **Kazemian P**, Lavieri MS, Van Oyen MP, Stein JD. Personalized prediction of glaucoma progression under different target intraocular pressure levels using filtered forecasting methods. ***Ophthalmology***. 2018 Apr;125(4):569-577. PMID: 29203067.  
♣ Journal impact factor: 8.2

### Working/Under Review Manuscripts (W)

- W4. The Long-Term Cost-Effectiveness of Telehealth Interventions for Persons with Persistently Poorly Controlled Type 2 Diabetes Mellitus. 2<sup>nd</sup> round of review at ***Annals of Internal Medicine***
- W3. Advancing Healthcare Operations Through Verifiable Artificial Intelligence and Blockchain: A Zero-Knowledge Machine Learning Approach. Under review at ***Operations Research***
- W2. Cost-effectiveness of Remdesivir in Patients Hospitalized for COVID-19: A Modeling Analysis. Under review at ***BMC Infectious Diseases***
- W1. Blood Glucose Management with Noisy Measurements Using Deep Kalman Filters. Working paper

### Commentaries and Editorials (C)

- C8. **Kazemian P**. Deep Learning and Artificial Intelligence in Healthcare. *OR/MS Today*. Available at: <https://pubsonline.informs.org/doi/10.1287/orms.2022.05.10n/full>. Accessed December 5, 2022
- C7. **Kazemian P**. A commentary on: Expanding access to newer medicines for people with type 2 diabetes in low-income and middle-income countries: a cost-effectiveness and price target analysis. *PracticeUpdate* website. Available at: <https://www.practiceupdate.com/content/expanding-access-to-newer-type-2-diabetes-medications-in-low-and-middle-income-countries/127454/65/8/1>. Accessed December 13, 2021

- C6. **Kazemian P.** Predicting 5- and 10-Year Mortality Risk in Older Adults With Diabetes. *PracticeUpdate*. Available at: <https://www.practiceupdate.com/content/predicting-5-and-10-year-mortality-risk-in-older-adults-with-diabetes/102828/65/8/1>. Accessed July 10, 2020
- C5. **Kazemian P.** Disparities in glycaemic control, monitoring, and treatment of type 2 diabetes in England: A retrospective cohort analysis. *PracticeUpdate*. Available at: <https://www.practiceupdate.com/content/disparities-in-glycemic-control-monitoring-and-treatment-of-type-2-diabetes-in-england/90969/65/8/1>. Accessed October 18, 2019
- C4. **Kazemian P.** Cost-effectiveness analysis of Empagliflozin treatment in people with type 2 diabetes and established cardiovascular disease in the EMPA-REG OUTCOME Trial. *PracticeUpdate*. Available at: <https://www.practiceupdate.com/content/examining-the-economic-implications-of-the-empa-reg-outcome-trial/86545/65/8/1>. Accessed July 24, 2019
- C3. **Kazemian P.** Cost-effectiveness of the US food and drug administration added sugar labeling policy for improving diet and health. *PracticeUpdate*. Available at: <https://www.practiceupdate.com/content/fda-added-sugar-labeling-policy-cost-effective-and-expected-to-improve-health/82609/65/8/1>. Accessed May 03, 2019
- C2. **Kazemian P.** Prediction of individual life-years gained without cardiovascular events from lipid, blood pressure, glucose, and aspirin treatment based on data of more than 500,000 patients with type 2 diabetes mellitus. *PracticeUpdate*. Available at: <https://www.practiceupdate.com/content/prediction-of-individual-life-years-gained-without-cardiovascular-events-from-preventive-treatment-in-patients-with-type-2-diabetes-mellitus/78556/65/8/1>. Accessed February 01, 2019
- C1. **Kazemian P.** The 30-year cost-effectiveness of alternative strategies to achieve excellent glycemic control in type 1 diabetes: an economic simulation informed by the results of the DCCT/EDIC. *PracticeUpdate*. Available at: <http://www.practiceupdate.com/content/30-year-cost-effectiveness-associated-with-excellent-glycemic-control-in-type-1-diabetes/69637/65/8/1>. Accessed July 16, 2018

## Honors and Awards

2024	John R. Mannix Medical Mutual of Ohio Endowed Professorship in Healthcare Management	Case Western Reserve University	Appointed to the endowed chair position based on excellence in research and teaching
2024	The George and Michael Dively Award for Outstanding Pre-Tenured Faculty	Weatherhead School of Management, Case Western Reserve University	Annual award given to one pre-tenured faculty for their scholarly contributions and excellence in research
2022	Best Paper Competition of College of Healthcare Operations Management (Finalist)	Production and Operations Management Society (POMS)	Best research paper of the year on any healthcare operations management topic
2021	MSOM Best Student Paper Award (Finalist)	Institute for Operations Research and the Management Sciences (INFORMS)	Annual award given for papers judged to be the best in the field of Operations Management

2020	Decision Analysis Society Best Student Paper (Finalist)	Institute for Operations Research and the Management Sciences (INFORMS)	Annual award given to the best decision analysis paper, as judged by a panel of members of the society
2017	Partners in Excellence Award	Partners Healthcare	Above and beyond efforts in support of the Partners Healthcare mission
2016	Best Paper Competition of College of Healthcare Operations Management (1 <sup>st</sup> place)	Production and Operations Management Society (POMS)	Best research paper of the year on any healthcare operations management topic
2016	George B. Dantzig Dissertation Award (2 <sup>nd</sup> place)	Institute for Operations Research and the Management Sciences (INFORMS)	Best Ph.D. dissertation in any area of operations research and the management sciences that is innovative and relevant to practice (international award)
2016	Richard and Eleanor Towner Prize for Outstanding Graduate Student Instructors (Finalist)	University of Michigan	University-wide award for excellence and innovation in teaching
2016	Richard and Eleanor Towner Prize for Outstanding Ph.D. Research (Finalist)	University of Michigan	University-wide award for excellence and innovation in research
2015-2016	Rackham Graduate School Predoctoral Fellowship	University of Michigan	Working on a PhD dissertation that is unusually creative, ambitious, and risk-taking
2015	Katta Murty Prize (1 <sup>st</sup> place)	University of Michigan	Best research paper of the year on optimization
2015	IBM Service Science Best Student Paper Award (Honorary Mention)	Institute for Operations Research and the Management Sciences (INFORMS)	Best research paper of the year related to theory, methods, and applications in service science
2015	Modern Medicine Featured Article	Ophthalmology Times	Cutting-edge research on personalized machine learning models to predict glaucoma progression
2014	Decision Analysis Society Practice Award (Finalist)	Institute for Operations Research and the Management Sciences (INFORMS)	Best decision analysis paper of the year

2013	Bonder Scholarship for Applied Operations Research in Health Services	Institute for Operations Research and the Management Sciences (INFORMS)	Potential in making a significant contribution to the field of applied operations research in healthcare systems
2011-2012	Rackham Graduate School Fellowship Award	University of Michigan	Excellence academic performance
2009	Rutgers University Fellowship Award	Rutgers University	Excellence academic performance

## Funded Research Grants

2024-2025	Designing a Responsible AI-enabled Digital Service Ecosystem (RAIDSE) for Equity and Inclusion in Finance and Healthcare NSF 2427505 Role: Co-Principal Investigator
2024-2025	Simulation and Mathematical Modeling to Improve Management of Type 2 Diabetes WSOM Emerging Impact Award Role: Principal Investigator
2019-2024	Optimizing HIV Care in Less Developed Countries NIH/NIAID R01 AI058736 Role: Consortium Principal Investigator
2016-2018	The Cost-effectiveness of Interventions to Promote Medication Adherence in Type 2 Diabetes NIH/NIDDK P30 DK057521 Role: Co-Investigator
2016-2019	Applied Operations Research to Healthcare Seth Bonder Foundation Role: Principal Investigator

## Pending/In-Progress Research Grants

2025-2030	Optimizing Cardiovascular Care and Promoting Health Equity for Adults with Diabetes in Diverse Global Settings NIH/NHLBI 1R01HL172907-01A1 Role: Consortium Principal Investigator
2025-2030	Cost-Effectiveness of Preventing HIV Complications NIH/NIAID 2R01AI042006-29 Role: Consortium Principal Investigator
2025-2030	Personalized and Verifiable Artificial Intelligence for Healthcare Decision Making NSF Faculty Early Career Development Program (CAREER) Role: Principal Investigator



## Teaching

### Course Instructor, Weatherhead School of Management

Course	Semester	Enrollment	Response Percentage	Course Rating	Instructor Rating
SCMG 481 <sup>11</sup>	Spring 2025	21	90%	4.63	4.74
SCMG 480/ OPMT 480 <sup>6</sup>	Spring 2025	17	82%	4.64	4.71
BUAI 432 <sup>3</sup>	Spring 2025	19	84%	3.75	4.56
MBAP 428H <sup>9</sup>	Spring 2025	42	64%	3.93	4.48
MBAP 429H <sup>10</sup>	Spring 2025	42	61%	3.85	4.44
BUAI 446 <sup>1</sup>	Fall 2024	28	54%	4.47	4.73
BUAI 432 <sup>3</sup>	Spring 2024	22	95%	4.86	4.90
SCMG 480/ OPMT 480 <sup>6</sup>	Spring 2024	26	77%	4.70	4.75
MBAP 428H <sup>9</sup>	Spring 2024	36	47%	4.35	4.65
MBAP 429H <sup>10</sup>	Spring 2024	34	47%	3.31	4.25
BUAI 446 <sup>1</sup>	Fall 2023	34	88%	4.87	4.90
SCMG 432A/ OPRE 332B <sup>8</sup>	Spring 2023	46	89%	4.44	4.63
SCMG 432B/ OPRE 332A <sup>7</sup>	Spring 2023	24	79%	4.68	4.68
SCMG 480/ OPMT 480 <sup>6</sup>	Spring 2023	38	71%	4.33	4.59
BUAI 432 <sup>3</sup>	Spring 2023	29	94%	4.97	4.97
BUAI 446 (Sec 100) <sup>1</sup>	Fall 2022	33	70%	4.65	4.83
BUAI 446 (Sec 101) <sup>1</sup>	Fall 2022	29	69%	4.95	4.95
MBAP 403H <sup>5</sup>	Summer 2022	14	71%	3.90	3.70
BUAI 432 <sup>3</sup>	Spring 2022	64	89%	4.67	4.81
SCMG 432B/ OPRE 332B <sup>8</sup>	Spring 2022	18	83%	4.00	4.40
SCMG 432A/ OPRE 332A <sup>7</sup>	Spring 2022	37	92%	4.29	4.38
SCMG 480/ OPMT 480 <sup>6</sup>	Spring 2022	27	93%	4.44	4.72
MBAP 403H <sup>5</sup>	Spring 2022	23	65%	4.00	4.07
MBAP 400H <sup>4</sup>	Spring 2022	15	67%	3.80	3.50
BUAI 446 <sup>1</sup>	Fall 2021	29	66%	4.53	4.79
MSBA 432/ MSOR 432 <sup>3</sup>	Spring 2021	41	85%	4.60	4.86
MSBA 433/ MSOR 433 <sup>2</sup>	Spring 2021	27	93%	4.84	4.88
MSBA 446 <sup>1</sup>	Fall 2020	35	80%	4.96	4.96

1. Machine Learning and Artificial Intelligence in Business Analytics
2. Foundations of Probability and Statistics
3. Operations Analytics: Stochastic
4. Probability, Statistics, and Quantitative Methods
5. Statistics and Decision Modeling
6. Blockchain Technologies in Supply Chain Management
7. Spreadsheets and Business Process Simulation I
8. Spreadsheets and Business Process Simulation II
9. Healthcare Decision Making and Analytics
10. Artificial Intelligence in Healthcare
11. Artificial Intelligence for Business Management

### **Course Instructor, Harvard Medical School**

- 2019 HST192: Medical Decision Analysis and Probabilistic Medical Inference  
Harvard-MIT Health Sciences and Technology | MD-PhD program  
Evaluation score: 1.50 out of 5.00 (scale: 1-excellent, ..., 5-poor)
- 2018 HST192: Medical Decision Analysis and Probabilistic Medical Inference  
Harvard-MIT Health Sciences and Technology | MD-PhD program  
Evaluation score was not available

### **Course Instructor, University of Michigan**

- 2015 IOE202: Operations Modeling  
Industrial and Operations Eng., University of Michigan | undergraduate program  
Evaluation score: 4.63 out of 5.00 (scale: 5-excellent, ..., 1-poor)

### **Formal Teaching of Peers**

- 2017-2019 Mathematical methods to estimate the indirect community benefit of HIV interventions  
Faculty members and fellows of Department of Medicine at Harvard and MGH  
25 hours of lecture and discussion
- 2017-2019 Optimization modeling for HIV resource allocation  
Faculty members and fellows of Department of Medicine at Harvard and MGH  
50 hours of lecture and discussion
- 2017-2019 Introduction to simulation modeling and variance reduction techniques  
Faculty members and fellows of Department of Medicine at Harvard and MGH  
15 hours of lecture and discussion
- 2016-2018 Optimization modeling basics, concepts, and applications to HIV care  
Faculty members and fellows of Department of Medicine at Harvard and MGH  
20 hours of lecture and discussion

### **Mentored Students and Trainees**

- 2022-present Anjolaoluwa Popoola | Ph.D. student at Georgia Institute of Technology
- 2019-2021 Vijeta Deshpande | Research assistant at Massachusetts General Hospital
- 2019-2021 Delaney Ding | Research assistant at Massachusetts General Hospital
- 2016-2021 Esmaeil Keyvanshokoo | Ph.D. student at University of Michigan
- 2018-2019 Nicole McCann | Research assistant at Massachusetts General Hospital
- 2017-2019 Sydney Costantini | Research fellow at Stanford University
- 2017-2018 Naomi Fields | Medical student at the University of Pennsylvania
- 2018 Silvio Martinez | Medical student at the University of Florida
- 2016-2017 Amy Zheng | Medical student at Harvard Medical School

## **Presentations and Seminars**

### **Selected Conference Presentations**

2025	Interpretable Deep Learning Models for Early Detection of Alzheimer's Disease Annual Precision Medicine Tri-Con, San Diego, CA
2024	Advancing Healthcare Operations Through Verifiable Artificial Intelligence and Blockchain Analytics 4 Insights Seminar Series, Cleveland, OH
2023	Personalized Treatment Decisions for Type 2 Diabetes: Balancing Health Benefits and Costs INFORMS Annual Meeting, Phoenix, AZ
2022	Mitigating the COVID-19 Pandemic Through Data-driven Resource Sharing INFORMS Annual Meeting, Indianapolis, IN
2021	Data-driven Adaptive Robust Optimization For Resource Sharing During A Pandemic INFORMS Annual Meeting, Anaheim, CA
2020	An Interpretable Artificial Intelligence Model for Detection of COVID-19 from Chest Radiography Images INFORMS Annual Meeting, Online
2019	Cost-effectiveness of Pre-exposure Prophylaxis and HIV Testing Strategies in India INFORMS Annual Meeting, Seattle, WA
2019	Persistent Treatment Gaps and Disparities in US Diabetes Mellitus Care in 2005-2016 American Diabetes Association 79th Scientific Sessions, San Francisco, CA
2018	The Cost-effectiveness of HIV Pre-exposure Prophylaxis in High-risk Groups in India INFORMS Annual Meeting, Phoenix, AZ
2018	The Development and Validation of a New Microsimulation Model of Type 2 Diabetes INFORMS Annual Meeting, Phoenix, AZ
2017	Personalized Prediction of Glaucoma Progression under Different Target Eye Pressure Levels INFORMS Annual Meeting, Houston, TX
2016	Dynamic Personalized Monitoring and Treatment Control of Glaucoma POMS Annual Conference, Orlando, FL
2016	Scheduling Appointments to Meet Access Delay Service Level for Surgery at the Mayo Clinic POMS Annual Conference, Orlando, FL
2016	Dynamic Monitoring and Control of Irreversible Chronic Diseases with Application to Glaucoma INFORMS Annual Meeting, Nashville, TN
2016	Coordinating Clinic and Surgery Appointments to Meet Access Service Levels for Elective Surgery

	INFORMS Annual Meeting, Nashville, TN
2015	Dynamic Personalized Monitoring and Treatment Control of Glaucoma INFORMS Healthcare Conference, Nashville, TN
2015	Dynamic Personalized Monitoring and Treatment Control of Chronic Diseases POMS Annual Conference, Washington, DC
2015	Dynamic Personalized Monitoring and Treatment Control of Glaucoma INFORMS Annual Meeting, Philadelphia, PA
2014	Dynamic Monitoring and Control of Chronic Diseases with a Case Study of Glaucoma POMS Annual Conference, Atlanta, GA
2014	Dynamic Personalized Monitoring and Treatment Control of Chronic Diseases INFORMS Annual Meeting, San Francisco, CA
2013	Optimal Simultaneous Dynamic Monitoring and Treatment Control for Chronic Diseases INFORMS Healthcare Conference, Chicago, IL
2013	An IP-based Handoff-sensitive Shift Design Method for Scheduling Critical Care Trainees POMS Annual Conference, Denver, CO
2013	Optimal Simultaneous Dynamic Monitoring and Treatment Control for Chronic Diseases INFORMS Annual Meeting, Minneapolis, MN

### **Invited Academic and Industry Seminars**

2024	Fundamentals of Zero-Knowledge Machine Learning Weatherhead School of Management Seminar Series, Cleveland, OH
2022	Sharing is Caring: Mitigating the COVID-19 Pandemic Through Data-driven Resource Sharing Operations Department Seminar, Weatherhead School of Management, Cleveland, OH
2021	Cascade of Diabetes Care in the United States: A Serial Cross-sectional Study Endocrine Grand Rounds, University Hospitals, Cleveland, OH
2019	The Development and Validation of a Microsimulation Model for Projection and Evaluation of Type 2 Diabetes Interventions, Complications, and Treatments Division of General Internal Medicine, Massachusetts General Hospital, Boston, MA
2019	Cascade Of U.S. Diabetes Care: No Headway For More Than A Decade Intarcia Therapeutics, Boston, MA
2018	Estimating the Indirect Benefits of Averting HIV Transmissions Infectious Diseases Division, Massachusetts General Hospital, Boston, MA
2017	Coordinated Appointment Scheduling to Improve Access to Elective Surgery Department of Neurology, Massachusetts General Hospital, Boston, MA

2017	The Cost-effectiveness of HIV Pre-exposure Prophylaxis in High-risk Groups in India Division of General Internal Medicine, Massachusetts General Hospital, Boston, MA
2016	Coordinated Care Delivery Center for Healthcare Engineering and Patient Safety (CHEPS), Ann Arbor, MI
2016	Dynamic Monitoring and Treatment Control of Chronic Diseases with a Case Study of Glaucoma Industrial Eng. Graduate Seminar Series, University of Washington, Seattle, WA
2015	Coordinating Clinical and Surgical Appointments in Colon and Rectal Surgery Mayo Clinic Systems Eng./Operations Research Seminar Series, Rochester, MN
2014	Dynamic Personalized Forecasting, Monitoring and Control of Open Angle Glaucoma Progression Annual Symposium on Healthcare Engineering and Patient Safety, Ann Arbor, MI
2013	An IP-based Handoff-sensitive Shift Design Approach for Scheduling Critical Care Trainees Annual Symposium on Healthcare Engineering and Patient Safety, Ann Arbor, MI
2012	Handoff-sensitive Shift Design for Critical Care Fellows with ACGME Duty Hours Consideration METRIC Seminar Series at Saint Marys Hospital, Rochester, MN
2012	Using Mathematical Programming to Schedule Physicians in ICU Mayo Clinic Systems Eng./Operations Research Seminar Series, Rochester, MN

## **Service and Other Professional Activities**

### **Service to Professional Society**

2024	Seth Bonder Scholarship for Applied Operations Research in Health Services Committee Co-Chair Institute for Operations Research and the Management Sciences (INFORMS)
2022-2023	Treasurer for the Health Applications Society (HAS) Institute for Operations Research and the Management Sciences (INFORMS)

### **Conferences Sessions Organized and Chaired**

2025	“Deep Learning for Medical Decision Making” INFORMS Annual Meeting, Atlanta, GA
2023	“Practice-driven Healthcare Research in Collaboration with Hospitals and Clinicians” INFORMS Annual Meeting, Phoenix, AZ
2023	“Modeling and Optimization for Public Health Policy” INFORMS Healthcare Conference, Toronto, Canada
2022	“Medical Decision Making” INFORMS Annual Meeting, Indianapolis, IN

2021	"Using Health Data to Inform Decision Making" INFORMS Annual Meeting, Anaheim, CA
2020	"Artificial Intelligence in Healthcare" INFORMS Annual Meeting, Online
2018	"HIV Prevention, Testing, and Treatment" INFORMS Annual Meeting, Phoenix, AZ
2018	"Medical Decision Analysis by Bonder Scholars" INFORMS Annual Meeting, Phoenix, AZ
2017	"Health Policy Modeling, Analysis, and Insight" INFORMS Annual Meeting, Houston, TX
2017	"Applied Operations in Health Services: Research by Bonder Scholars" INFORMS Annual Meeting, Houston, TX
2016	"Healthcare Policy, Personalized Treatment, and Coalitions: Operations Research Approaches" INFORMS Annual Meeting, Nashville, TN
2016	"Coordinated Care Delivery" INFORMS Annual Meeting, Nashville, TN
2015	"Medical Decision Making" INFORMS Annual Meeting, Philadelphia, PA
2015	"Operations Research Approaches to Medical Decision Making" INFORMS Healthcare Conference, Nashville, TN
2014	"Medical Decision Making: Research by Bonder Scholars" INFORMS Annual Meeting, San Francisco, CA

### **Department, School, and University Service**

2025 - present	CWRU AI Governance Committee
2024 - present	Supply Chain Management Program Recruitment & Melt Management Committee
2024 - present	WSOM Curriculum Committee
2024 - present	WSOM AI Taskforce
2024 - present	Business Analytics & Intelligence Program Advisory Committee
2024 - present	CWRU Health Advisory Committee
2024	MSCM 2.0 Curriculum Redesign Committee
2024	AI in Education Symposium (Guest Speaker)
2024	Emeriti Academy Program on Artificial Intelligence (Guest Speaker & Panelist)
2024	WSOM AI Symposium (Panelist)
2024	CWRU AI Literacy Lunch-and-Learn (Guest Speaker)
2024	Weatherhead Health Planning Committee
2022-2023	Undergraduate and Integrated Studies (UGIS) Committee
2022	CWRU Practicum Program (Faculty Advisor)
2020-2021	Task Force for the Healthcare MBA Degree

## **Journal Referee**

- Management Science
- Operations Research
- Manufacturing & Service Operations Management (MSOM)
- INFORMS Journal on Computing (IJOC)
- INFORMS Journal on Data Science (IJDS)
- Health Care Management Science
- Institute of Industrial and Systems Engineers Transactions (IISE Transactions)
  
- JAMA Internal Medicine
- Annals of Internal Medicine
- Journal of the International AIDS Society (JIAS)
- Journal of Acquired Immune Deficiency Syndromes (JAIDS)
- Applied Clinical Informatics (ACI)
- Value in Health

## **Competition Judge**

- INFORMS Pierskalla Best Paper Competition
- INFORMS Seth Bonder Scholarship for Applied Operations Research in Health Services
- POMS College of Healthcare Operations Management Best Paper Competition

## **Professional Membership**

2012-present	Institute for Operations Research and the Management Sciences (INFORMS)
2012-present	Production and Operations Management Society (POMS)
2015-present	Decision Sciences Institute (DSI)
2018-2020	American Diabetes Association (ADA)