Murat Kocaoglu

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Baltimore, MD 21218

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Positions

Assistant Professor Aug. 18, 2025 – present

Department of Computer Science
Johns Hopkins University
I conduct research on causal machine learning, causal structure discovery, deep generative models, information theory and online algorithms.

Assistant Professor Jan. 1, 2021 – Aug. 15, 2025

School of Electrical and Computer Engineering
Purdue University
I conduct research on causal machine learning, causal structure discovery, deep generative models, information theory and online algorithms.

Research Staff Member Sep. 2018 – Dec. 2021

MIT-IBM Watson AI Lab
IBM Research
I conduct research on causal machine learning, causal structure discovery, deep generative models, information theory and online algorithms.

Teaching Experience

Co-instructor (jointly taught with Mathias Unberath) Fall 2025

CS482/682 ML: Deep Learning
Department of Computer Science, Johns Hopkins University
Fundamentals of Deep Learning methods and state of the art architectures.

Instructor Spring 2025

ECE570: Artificial Intelligence
School of Electrical and Computer Engineering, Purdue University
Unsupervised learning, probabilistic methods in AI/ML.

Instructor Fall 2021, Fall 2023

ECE695-230: Probabilistic Causal Inference
School of Electrical and Computer Engineering, Purdue University
Causal inference and discovery, ML applications.
Fall 2021 Enrollment: 15 students. Fall 2023 Enrollment: 20 students

Instructor Spring 2022, Spring 2023, Spring 2024, Fall 2024

ECE20875: Python for Data Science
School of Electrical and Computer Engineering, Purdue University
Basics of data science and statistics, and Python.
Spring 2022 Enrollment: 132 students. Spring 2023 Enrollment: 90 students.
Spring 2024 Enrollment: 139 students. Fall 2024 Enrollment: 93 students.

Instructor Fall 2022

ECE642: Information Theory and Source Coding
School of Electrical and Computer Engineering, Purdue University
Encoding/decoding and transmission of information. Entropy, channel capacity, and source compression algorithms. Enrollment: 15.

Co-Instructor Spring 2021

ECE302: Probabilistic Methods in Electrical and Computer Eng.
School of Electrical and Computer Engineering, Purdue University
Co-taught with Prof. Saul Gelfand. Enrollment: 261 students.

Education

The University of Texas at Austin, Sept. 2013 – Aug. 2018
PhD, Electrical and Computer Engineering.
Thesis: Causality: From Learning to Generative Models
Co-advisor: *Prof. Alexandros G. Dimakis*
Co-advisor: *Prof. Sriram Vishwanath*

Koc University, Istanbul, Turkey Sept. 2010 – Aug. 2012
Master of Science, Electrical Engineering.
Thesis: Minimum Energy Channel and Network Coding with Applications in Nanoscale Communications
Advisor: *Prof. Ozgur B. Akan*

Middle East Technical University, Ankara, Turkey Sept. 2006 – Jun. 2010
Major: Bachelor of Science, Electrical and Electronics Engineering.
Graduated with High-honors. Minor: Physics.

Prev. Positions

Research Staff Member, MIT-IBM Watson AI Lab, Sept. 2018 – Dec. 2020
IBM Research MA, USA
I conducted research on causal inference and discovery, learning theory, deep generative models and information theory.

Research Assistant, Wireless Networking and Communications Group, Sept. 2013 – Aug. 2018
The University of Texas at Austin, Austin. USA.
I conducted research on causal discovery from observational data using information-theoretic methods, as well as causal discovery using interventions. I also worked on learning theory and online algorithms.

Current Research Interests

- Causal Methods for Security
- Trustworthy AI
- Causal Inference and Structure Discovery
- Generative Models
- Information Theory
- Online Algorithms

Post-Doc Researchers

Lai Wei — Fall 2022 - Summer 2023

PhD Students

Md. Musfiqur Rahman	Fall 2021 - current
Kenneth Lee	Fall 2021 - current
Ziwei Jiang	Fall 2022 - current
Shanyun Gao	Fall 2022 - current
Qasim Elahi	Fall 2022 - current
Zihan Zhou	Fall 2023 - current

Undergrad. Researchers

Ryan Wans — Fall 2024

Online MSECE Students	Shaunak Mukherjee	2024
Visiting Researchers	Suyeong Park	July - August 2021

Publications
Machine Learning, AI

1. S. Gao, R. Addanki, T. Yu, R. A. Rossi, Q. Song, M. Kocaoglu, "Stationarity-Aware Causal Discovery in Time Series via Minimal Separating Sets," **in Proc. of AISTATS 2026,** Tangier, Morocco, May 2026.
2. Z. Zhou, Q. Elahi, M. Kocaoglu, "Characterization and Learning of Causal Graphs from Hard Interventions," **in Proc. of NeurIPS'25,** San Diego, CA, Dec. 2025.
3. J. Zhou, M. Wang, A. He, Y. Zhou, H. Olya, M. Kocaoglu, B. Ribeiro, "Differentiable Constraint-Based Causal Discovery," **in Proc. of NeurIPS'25,** San Diego, CA, Dec. 2025.
4. M. Q. Elahi, M. Ghasemi, M. Kocaoglu, "Identification of Average Treatment Effects in Confounded Additive Noise Models", **in Proc. of TMLR**, Oct. 2025.
5. M. M. Rahman, M. Kocaoglu, "FeDCM: Federated Learning of Deep Causal Generative Models," **in Proc. of UAI'25**, Rio de Janeiro, Brazil, July 2025.
6. A. Ikram, K. Lee, Shubham Agarwal, Subrata Mitra, Shiv Kumar Saini, Saurabh Bagchi, Murat Kocaoglu, "Root Cause Analysis of Failures from Partial Causal Structures," **in Proc. of UAI'25**, Rio de Janeiro, Brazil, July 2025.
7. K. Lee, B. Ribeiro, M. Kocaoglu, "Constraint-based Causal Discovery from a Collection of Conditioning Sets," **in Proc. of UAI'25**, Rio de Janeiro, Brazil, July 2025.
8. S. Gao, R. Addanki, T. Yu, R. A. Rossi, M. Kocaoglu, "Causal Discovery-Driven Change Point Detection in Time Series," **in Proc. of AISTATS'25**, Phuket, Thailand, May 2025.
9. M. M. Rahman, M. Jordan, M. Kocaoglu, "Conditional Generative Models are Sufficient to Sample from Any Causal Effect Estimand," **in Proc. of NeurIPS'24**, Vancouver, Canada, Dec. 2024.
10. Z. Zhou, M. Q. Elahi, M. Kocaoglu, "Sample Efficient Bayesian Learning of Causal Graphs from Interventions," **in Proc. of NeurIPS'24**, Vancouver, Canada, Dec. 2024.
11. M. Q. Elahi, M. Ghasemi, M. Kocaoglu, "Partial Structure Discovery is Sufficient for No-regret Learning in Causal Bandits," **in Proc. of NeurIPS'24**, Vancouver, Canada, Dec. 2024.
12. Z. Zhou, T. Liu, R. Bai, J. Gao, M. Kocaoglu, D. I. Inouye, "Counterfactual Fairness by Combining Factual and Counterfactual Predictions," in **Proc. of NeurIPS'24**, Vancouver, Canada, Dec. 2024.
13. M. Rahman, M. Kocaoglu, "Modular Learning of Deep Causal Generative Models for High-dimensional Causal Inference", in **Proc. of ICML'24**, Austria, Vienna, July 2024.
14. Q. Elahi, L. Wei, M. Kocaoglu, M. Ghasemi, "Adaptive Online Experimental Design for Causal Discovery," in **Proc. od ICML'24**, Austria, Vienna, July 2024.
15. Z. Jiang, M. Kocaoglu, "Conditional Common Entropy for Instrumental Variable Testing and Partial Identification," in **Proc. of ICML'24**, Austria, Vienna, July 2024.
16. S. Kulinski, Z. Zhou, R. Bai, M. Kocaoglu, D. I. Inouye, "Towards Characterizing Domain Counterfactuals for Invertible Latent Causal Models," in **Prof. of ICLR'24**, 2024.
17. M. Kocaoglu, "Characterization and Learning of Causal Graphs with Small Conditioning Sets", in **Proc. of NeurIPS'23**, New Orleans, LA, USA, 2023.
18. S. Gao, R. Addanki, T. Yu, R. A. Rossi, M. Kocaoglu, "Causal Discovery in Semi-Stationary Time Series," in **Proc. of NeurIPS'23**, New Orleans, LA, USA, 2023.
19. L. Wei, M. Q. Elahi, M. Ghasemi, M. Kocaoglu, "Approximate Allocation Matching for Structural Causal Bandits with Unobserved Confounders," in **Proc. of NeurIPS'23**, New Orleans, LA, USA, 2023.

20. A. Shah, K. Shanmugam, M. Kocaoglu, "Front-door Adjustment Beyond Markov Equivalence with Limited Graph Knowledge", in **Proc. of NeurIPS'23**, New Orleans, LA, USA, 2023.

21. K, Lee, M. Rahman, M. Kocaoglu, "Finding Invariant Predictors Efficiently via Causal Structure", in **Proc. of UAI'23**, Pittsburgh, Mar. 2023.

22. Z. Jiang, L. Wei, M. Kocaoglu, "Approximate Causal Effect Identification under Weak Confounding", in **Proc. of ICML'23**, Feb. 2023.

23. S. Compton, D. Katz, B. Qi, K. Greenewald, M. Kocaoglu, "Minimum-Entropy Coupling Approximation Guarantees Beyond the Majorization Barrier," in **Proc. of AISTATS'23**, Valencia, Spain, Apr. 2023.

24. M. A. Ikram, S. Chakraborty, S. Mitra, S. Saini, S. Bagchi, M. Kocaoglu, "Root Cause Analysis of Failures in Microservices through Causal Discovery," in **Proc. of NeurIPS'22**, Dec. 2022.

25. S. Compton, K. Greenewald, D. Katz, M. Kocaoglu, "Entropic Causal Inference: Graph Identifiability", in **Proc. of ICML'22**, Baltimore, USA, July 2022.

26. K. Ahuja, P. Sattigeri, K. Shanmugam, D. Wei, K. N. Ramamurthy, M. Kocaoglu, "Conditionally Independent Data Generation", in **Proc. of UAI'21**, Online, July 2021.

27. M. Kocaoglu, S. Shakkottai, A. G. Dimakis, C. Caramanis, S. Vishwanath, "Applications of Common Entropy for Causal Inference," in **Proc. of NeurIPS'20**, Online, Dec. 2020.

28. S. Compton, M. Kocaoglu, K. Greenewald, D. Katz, "Entropic Causality: Identifiability and Finite Sample Results," in **Proc. of NeurIPS'20**, Online, Dec. 2020.

29. A. Jaber, M. Kocaoglu, K. Shanmugam, E. Bareinboim, "Causal Discovery from Soft Interventions with Unknown Targets: Characterization and Learning," in **Proc. of NeurIPS'20**, Online, Dec. 2020.

30. C. Squires, S. Magliacane, K. Greenewald, D. Katz, M. Kocaoglu, K. Shanmugam, "Active Structure Learning of Causal DAGs via Directed Clique Trees," in **Proc. of NeurIPS'20**, Online, Dec. 2020.

31. M. Kocaoglu*, A. Jaber*, K. Shanmugam*, E. Bareinboim, "Characterization and Learning of Causal Graphs with Latent Variables from Soft Interventions," in **Proc. of NeurIPS'19**, Vancouver, Canada, Dec. 2019.

32. K. Greenewald, D. Katz, K. Shanmugam, S. Magliacane, M. Kocaoglu, E. B. Adsera, G. Bresler, "Sample Efficient Active Learning of Causal Trees," in **Proc. of NeurIPS'19**, Vancouver, Canada, Dec. 2019.

33. E. Lindgren, M. Kocaoglu, A. G. Dimakis, S. Vishwanath, "Minimum Cost Intervention Design and Connections to Submodularity," in **Proc. of NeurIPS'18**, Montreal, Canada, Dec. 2018.

34. M. Kocaoglu*, C. Snyder*, A. G. Dimakis, S.Vishwanath, "CausalGAN: Learning Causal Implicit Generative Models with Adversarial Training," in **Proc. of ICLR'18**, Vancouver, May 2018.

35. M. Kocaoglu*, K. Shanmugam*, E. Bareinboim, "Experimental Design for Learning Causal Graphs with Latent Variables," in **Proc. of NIPS'17**, Dec. 2017.

36. M. Kocaoglu, A. G. Dimakis, S. Vishwanath, "Cost-Optimal Learning of Causal Graphs," in **Proc. of ICML'17**, 2017.

37. M. Kocaoglu, A. G. Dimakis, S. Vishwanath, B. Hassibi, "Entropic Causality and Greedy Minimum Entropy Coupling," in **Proc. of ISIT'17**, 2017.

38. R. Sen, K. Shanmugam, M. Kocaoglu, A. G. Dimakis, S. Shakkottai, "Contextual Bandits with Latent Confounders: An NMF Approach," in **Proc. of AISTATS'17**, Fort Lauderdale, USA, Apr. 2017.

39. M. Kocaoglu, A. G. Dimakis, S. Vishwanath, B. Hassibi, "Entropic Causal Inference," in **Proc. of AAAI'17**, San Francisco, USA, Feb. 2017.

40. K. Shanmugam*, M. Kocaoglu*, A. G. Dimakis, S. Vishwanath, "Learning Causal Graphs with Small Interventions," in **Proc. of NIPS'15**, Montreal, Canada, Dec. 2015.

41. M. Kocaoglu*, K. Shanmugam*, A. G. Dimakis, A. Klivans, "Sparse Polynomial Learning and Graph Sketching," in **Proc. of NIPS'14 (Oral)**, Montreal, Canada, Dec. 2014.

Workshop Papers

1. M. Q. Elahi, M. Ghasemi and M. Kocaoglu, "Partial Structure Discovery is Sufficient for No-regret Learning in Causal Bandits," ICML 2024 Workshop: Foundations of Reinforcement Learning and Control– Connections and Perspectives, Jul. 2024.
2. M. M. Rahman, M. Jordan, M. Kocaoglu, "Conditional Generative Models are Sufficient to Sample from Any Causal Effect Estimand," in ICML 2024 Workshop on Structured Probabilistic Inference and Generative Modeling, Vienna, Austria, Jul. 2024.
3. Z. Jiang, M. Kocaoglu, "Conditional Common Entropy for Instrumental Variable Testing and Partial Identification," in ICML 2024 Workshop on Structured Probabilistic Inference and Generative Modeling, Austria, Vienna, July 2024.
4. K. Lee, B. Ribeiro, M. Kocaoglu, "Constraint-based Causal Discovery from a Collection of Conditioning Sets," 9th Causal Inference Workshop at UAI 2024, 2024.
5. K. Lee, M. Kocaoglu, "RCPC: A Sound Causal Discovery Algorithm under Orientation Unfaithfulness," 9th Causal Inference Workshop at UAI 2024, 2024.
6. S. Gao, R. Addanki, T. Yu, R. A. Rossi, M. Kocaoglu, "Causal Discovery in Semi-Stationary Time Series," UAI 2023 Workshop on Causal inference for Time-series Data, 2023.
7. Z. Jiang, L. Wei, M. Kocaoglu, "Approximate Causal Effect Identification under Weak Confounding," ICML 2023 Workshop on Spurious Correlations, Invariance, and Stability, 2023.
8. A. Shah, K. Shanmugam, M. Kocaoglu, "Front-door Adjustment Beyond Markov Equivalence with Limited Graph Knowledge," ICML 2023 Workshop on Spurious Correlations, Invariance, and Stability, 2023.
9. M. Rahman, M. Kocaoglu, "Towards Modular Learning of Deep Causal Generative Models," ICML 2023 Workshop on Spurious Correlations, Invariance, and Stability, 2023.
10. M. Rahman, M. Kocaoglu, "Towards Modular Learning of Deep Causal Generative Models," ICML 2023 Workshop on Structured Probabilistic Inference & Generative Modeling, 2023
11. S. Compton, M. Kocaoglu, K. Greenewald, D. Katz, "Entropic Causal Inference: Identifiability for Trees and Complete Graphs", in ITR3 Workshop at ICML-21, Online, July 2021.
12. E. Lindgren, M. Kocaoglu, A. G. Dimakis, S. Vishwanath, "Submodularity and Minimum Cost Intervention Design for Learning Causal Graphs," in DISCML'17 Workshop, NIPS'17, Dec. 2017.
13. M. Kocaoglu, A. G. Dimakis, S. Vishwanath, "Learning Causal Graphs with Constraints," in NIPS'16 Workshop: What If? Inference and Learning of Hypothetical and Counterfactual Interventions in Complex Systems, Barcelona, Spain, Dec. 2016.

Invited Talks & Activities

Organizer of AISTATS 2026 Workshop on Causality in the Age of AI Scaling, Tangier, Morocco, May 2026.

Invited Talk on "Causal Inference with Deep Generative Models," AI Keynote Series, Institute of AI in Management, LMU Munich, Online, Jan. 8, 2025.

Invited Talk on "Causal Inference with Deep Generative Models", MINDS/CIS Seminar Series, Nov. 4, 2025

Tutorial on "Causal Inference with Deep Learning and Generative Models," co-presented with Md. Musfiqur Rahman, UAI 2025, Rio de Janeiro, Brazil, July 2025.

Invited Talk on "Causal Machine Learning: Fundamentals and Applications," CCAIM Seminar Series, University of Cambridge, Nov. 22 2024.

Invited Talk on "Causal Machine Learning: Fundamentals and Applications," Department of Computer Science, Johns Hopkins University, Nov. 14 2024.

Invited Talk on "High-dimensional Causal Inference via Deep Generative Models with Applications in Trustworthy AI", Department of Statistics Colloquium, Purdue University, Oct. 2024.

Invited Talk on "Principled Causal Methods for Computer Security", AI/Security Talks, Amazon Web Services, Online, Oct. 2024.

Invited Participant to "Expert Workshop on Building Calibrated Trust in Artificial Intelligence," UA Ruhr, German House, NYC, New York, Oct. 2024.

Invited Talk on Entropic Methods for Causal Inference and Discovery, "Data-Driven Causal Inference: Information Theory Meets Dynamical Systems," AFOSR Arlington BRICC, Arlington, VA, Aug. 2024.

Session Chair of Oral Session 1 on Deep Learning, UAI'24, Barcelona, Spain.

Invited Talk on "Causal Machine Learning: Fundamentals and Applications," IDEAL Workshop on Graph Representation Learning Workshop, University of Illinois Chicago, May 2024.

Invited Talk on "Causal Machine Learning: Fundamentals and Applications," Purdue University, Department of Computer Science, March 2024.

Invited Talk on "Causal Machine Learning: Fundamentals and Applications," Middle East Technical University, Department of Electrical and Electronics Engineering, March 2024.

Invited Participant for "Semiconductor Industry Roundtable on Open and Scaled Data Sharing for Smart Manufacturing", Seagate, Minneapolis, Feb. 2024.

Invited Talk on "Approximate Causal Effect Identification under Weak Confounding", Information Theory Applications Workshop (ITA), San Diego, CA, Feb. 2024.

Invited Talk on "Causal Discovery via Common Entropy" at the Causal Inference & Quantum Foundations Workshop, Perimeter Institute, Waterloo, ON, Canada, Apr. 2023.

Invited Talk on "Entropic Causal Inference and Approximate Minimum Entropy Coupling", Information Theory Applications Workshop (ITA), San Diego, CA, Feb. 2023.

TILOS Seminar Series Invited Talk on "Causal Discovery for Root-cause Analysis," [Online], Jan. 2023.

Guest Editor for the Special Issue on "Information-theoretic Methods for Causal Inference and Discovery", Entropy, MDPI, 2023.

ICON Seminar on "Causal Discovery for Root-cause Analysis", Purdue University, October 2022.

Pacific Northwest National Laboratory (PNNL) Research Seminar on "Causal Discovery for Root-cause Analysis", July 2022.

Invited Participant at Simons Institute Causality Workshop, UC Berkeley, February 2022.

General chair for The AAAI-22 Workshop on Information-Theoretic Methods for Causal Inference and Discovery (ITCI'22), Vancouver, Canada, February 2022.

Session Chair for ICERM Workshop on Advances in Theory and Algorithms for Deep Reinforcement Learning, [Online], Aug. 2, 2021.

Discussant in Causality Session at UAI'21 [Online], July 27, 2021.

Purdue ECE Talk: Entropic Methods for Causal Discovery, Online talk for graduate students and the faculty, Mar. 4, 2021.

Session chair for IJCAI'20 [Machine Learning] Learning Generative Models, Jan. 2021.

Lightning Talk in Young Researchers Workshop on CausalGAN, ORIE, Cornell University, Ithaca, NY, Oct. 2019.

Co-organized "Bridging Causal Inference, Reinforcement Learning and Transfer Learning Workshop" in IBM AI Research Week, 2019.

Invited Talk in AAAI-WHY19 Spring Symposium on CausalGAN, Stanford, CA, March 25-27, 2019.

Shannon Channel Talk: Entropic Methods for Causal Discovery, Online talk hosted by Salim El Rouayheb, Mar. 1st, 2019.

Hands-on machine learning workshop (jointly with Alex Dimakis), 2018 North American School of Information Theory, Texas A&M University, May 20-23, 2018.

Invited Talk in Los Alamos National Laboratories (LANL) on Causality, Los Alamos, NM, Aug. 2017.

Organized student seminar series in machine learning in WNCG, UT Austin, 2015-2016.

Organizing Committee

Publicity Chair, UAI 2024

Area Chair, Senior PC, Meta-reviewer For

NeurIPS (since 2023),
ICML (since 2025),
AAAI (since 2021),
ICLR (since 2023),
AISTATS (since 2023),
UAI (since 2023),
ACML (since 2022),
IJCAI (2020-2021).

Associate Editor For

IEEE Transactions on Signal Processing (since 2026).

Reviewer For

NeurIPS (2016 - 2022), ICML (2018 - 2024), ICLR, AAAI (2020), AISTATS (2019-2022), IJCAI (2019), UAI, COLT, ISIT, CLeaR (since 2021) and many others.
Journal of Machine Learning Research (JMLR), IEEE Transactions on Information Theory,
IEEE Journal on Selected Areas in Information Theory (JSAIT), Neural Networks (ACM),
Nature (Human Behavior), Annals of Statistics, Annals of Applied Statistics
Artificial Intelligence (Elsevier), Data Mining and Knowledge Discovery (Springer)

PhD/MS Advisory Committee Member

Rahul Jain (PhD Thesis) *Nov. 2025*
Advisor: Karthik Ramani

William Stephen Richards (PhD Prelim) *Nov. 2025*
Advisor: Stylianos Chatzidakis

William Stephen Richards (MS Thesis) *2025*
Advisor: Stylianos Chatzidakis

Zeyu Zhou (PhD Thesis) *Nov. 2025*
Advisor: David Inouye

Osman Ali Mian (PhD Thesis) *Feb. 2025*
Advisor: Jilles Vreeken

Jimmy Ian Gammell
Advisor: Kaushik Roy

Sean Kulinsky (PhD Thesis) *Dec. 2023*
Advisor: David Inouye

Teng-Hui Huang (PhD Thesis) *2022*
Advisor: Aly El Gamal

Antesh Antesh (MS Candidate)
Advisor: Abolfazl Hashemi

Hyungjun Doh (MS Candidate)
Advisor: Karthik Ramani

Awards & Recognitions

Amazon Research Award *Mar. 2024*

NSF CAREER Award *July 2023*

Adobe Data Science Research Award *Mar. 2022*

Reviewer Award for NeurIPS 2022 *Nov. 2022*
Top Reviewer

Reviewer Award for UAI 2022 *July 2022*
Top Reviewer

Reviewer Award for ICLR 2022 *April 2022*
Highlighted Reviewer

Program Committee Board Member of IJCAI *2022-2024*

Reviewer Award for UAI 2021 *May 2021*
Amongst Top 5% of Reviewers

Reviewer Award for ICLR 2021 *Mar. 2021*
Outstanding Reviewer

Reviewer Award for ICML 2020 *Sept. 2020*
Amongst Top 33% of Reviewers

Reviewer Award for NeurIPS 2019 *Sept. 2019*
Amongst Top 50% of Reviewers

Reviewer Award for NeurIPS 2018 *Sept. 2018*
Amongst Top 218 Reviewers

Student Travel Award for ICLR 2018 *Mar. 2018*

Student Travel Award for NIPS 2017 *Oct. 2017*

Student Travel Award for ICML 2017 *June 2017*

Student Travel Grant for ISIT 2017 *Apr. 2017*

Short Course Travel Support *May. 2016*
Center for Causal Discovery (CCD), Pittsburgh

Student Travel Award for NIPS 2015 *Oct. 2015*

Best Senior Design Project, Dept. of Electrical and Electronics Engineering *Spring, 2010*
Middle East Technical University, Ankara, Turkey.
A wireless helmet design to detect user's head movements and facial gestures to accomplish certain tasks on the computer.

Bulent Kerim Altay Award, Dept. of Electrical and Electronics Engineering. *Spring, 2009*
Middle East Technical University, Ankara, Turkey.
Ranked 1st in the Department of Electrical and Electronics Engineering

Ranked Top 100 in National University Selection Exam of Turkey, *Jun. 2006*
Among more than 1.5 million students nation-wide

Outreach

Introduce A Girl to Engineering Day Activity Feb. 2023
Lemonade Stand: A hands-on activity that introduced the notion of causality to high school students.

Engineering Academic Career Club Academic Mentor Summer 2021, 2022, 2023, 2024
Biweekly mentorship meetings with 8 students interested in an academic career from a wide range of demographics, including several URM students.

Mentorship Session *2022*
The AAAI-22 Workshop on Information-theoretic Causal Inference and Discovery

Mentorship Circles at ICLR'21 [Online], March 3, 2021.