Evi Micha

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Research Interests

Algorithmic Fairness, Computational Social Choice, Voting, Mechanism Design, Fair Division, Multiagent Resource Allocation, Algorithmic Game Theory

Education

Sept 2018 - Aug 2023   **Ph.D. in Computer Science**
University of Toronto, Canada
Thesis: *Fair and Efficient Social Decision Making*
Advisor: Nisarg Shah
GPA: 4+/4

Oct 2016 - Jul 2018   **M.Sc. in Computer Science and Technology**
University of Patras, Greece
Thesis: *Computational aspects of liquid democracy*
Advisor: Ioannis Caragiannis
GPA: 9.93/10

Oct 2011 - Oct 2016   **Diploma in Computer Engineering and Informatics**
University of Patras, Greece
Thesis: *Computational aspects of simple voting rules*
Advisor: Ioannis Caragiannis
GPA: 8.76/10

Appointments

Aug 2024 -	**Assistant Professor** *University of Southern California*, USA
Sept 2023 - July 2024	**Postdoctoral Fellow** *Harvard University* , USA Host: Ariel Procaccia
Mar 2021 - Aug 2023	**Postgraduate Affiliate** *Vector Institute for Artificial Intelligence*, Canada
Jan 2022 - Aug 2023	**Postgraduate Affiliate** *Schwartz Reisman Institute for Technology and Society*, Canada
Jun 2022 - Aug 2022	**Visiting Graduate Researcher** *University of New South Wales (UNSW)*, Sydney, Australia Host: Haris Aziz
Sept 2021 - Dec 2021	**Visiting Graduate Researcher** *Harvard University*, Cambridge, USA Host: Ariel D. Procaccia

Awards & Fellowships

- *Canadian Artificial Intelligence Association (CAIAC) Best Doctoral Dissertation Award* (2024)
  Awarded annually to the best dissertation at a Canadian University in the field of Artificial Intelligence

- *Runner-Up Victor Lesser Distinguished Dissertation Award, IFAAMAS* (2023)
  Awarded annually to the best dissertation and two runners-up in the area of Autonomous Agents or Multiagent Systems.

- *Department of Computer Science, University of Toronto* (2022-2023)
  Computer Science 50th Anniversary Graduate Scholarship

- *Faculty of Arts and Science, University of Toronto* (2022-2023)
  General Motors Women in Science and Mathematics Award

- *Schwartz Reisman Institute for Technology and Society* (2022-2023)
  Graduate Fellowship

- *Department of Computer Science, University of Toronto* (2021-2022)
  Acres Productive Technologies Inc. Joseph Yonan Memorial Fellowship

- *Schwartz Reisman Institute for Technology and Society* (2020-2021)
  Graduate Fellowship

- *Technical Chamber of Greece (TEE-TCG)* (2018)
  Award for the 2nd highest GPA in 2016 - 2017

- *Lilian Voudouri Foundation* (2017)

Scholarship for M.Sc. studies (declined)

- *Foundation for Education and European Culture* (2017)
Scholarship for M.Sc. studies

- *University of Patras* (2017)
Award for the 1st highest GPA in my class

- *Limmat Foundation of Zurich* (2016)
Award for the 2nd highest GPA in 2016

Journal Publication (*authors in alphabetical order)

J1. Aris Filos-Ratsikas, Evi Micha, and Alexandros A. Voudouris. The Distortion of Distributed Voting. *Artificial Intelligence*, Volume 286, 103343, 2020.

Conference Publications (*authors in alphabetical order)

C19. Ioannis Caragiannis, Evi Micha and Jannik Peters. Can a Few Decide for Many? The Metric Distortion of Sortition. *In Proc. of 41st International Conference on Machine Learning (ICML)* 2024. Forthcoming.

C18. Soroush Ebadian, Daniel Halpern and Evi Micha. Metric Distortion with Elicited Pairwise Comparisons. *In Proc. of the 33rd International Joint Conference on Artificial Intelligence (IJCAI)* 2024. Forthcoming.

C17. Evi Micha, Shreyas Sekar, and Nisarg Shah. What is Best for Students, Numerical Scores or Letter Grades? *In Proc. of the 33rd International Joint Conference on Artificial Intelligence (IJCAI)* 2024. Forthcoming.

C16. Haris Aziz, Evi Micha, and Nisarg Shah. Group Fairness in Peer Review. *In Proc. of 37th Conference on Neural Information Processing Systems (NeurIPS)* 2023. Forthcoming.

C15. Edwin Lock, Francisco Marmolejo-Cossío, Evi Micha, and Ariel D. Procaccia. Welfare-Maximizing Pooled Testing. *In Proc. of 24th ACM Conference on Economics and Computation (EC)* , pp. 699, 2023. **(Exemplary Paper in the Applied Modeling Track)**

C14. Siddhartha Banerjee, Vasilis Gkatzelis, Safwan Hossain, Billy Jin, Evi Micha, and Nisarg Shah. Proportionally Fair Online Allocation of Public Goods. *In Proc. of 32nd International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 20-28, 2023.

C13. Haris Aziz, Aditya Ganguly, and Evi Micha. Best of Both Worlds Fairness under Entitlements. *In Proc. of 22nd International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pp. 941-948, 2023. .

C12. Lily Li, Evi Micha, Aleksandar Nikolov, and Nisarg Shah. Partitioning Friends Fairly. *In Proc. of 37th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 5747-5754, 2023.

C11. Soroush Ebadian, Gregory Kehne, Evi Micha, Ariel D. Procaccia, and Nisarg Shah. Is Sortition Both Representative and Fair? *In Proc. of 36th Conference on Neural Information Processing Systems (NeurIPS)* 2022. Forthcoming.

C10. Ioannis Caragiannis, Evi Micha, and Nisarg Shah. A Little Charity Guarantees Fair Connected Graph Partitioning. *In Proc. of 36th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 4908-4916, 2022.

C9. Markus Brill, Jonas Israel, Evi Micha, and Jannik Peters. Individual Representation in Approval-Based Committee Voting. *In Proc. of 36th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 4892-4899, 2022.

C8. Safwan Hossain, Evi Micha, and Nisarg Shah. Fair Algorithms for Multi-Agent Multi-Armed Bandits. *In Proc. of 35th Annual Conference on Neural Information Processing Systems (NeurIPS)*, pp. 24005-24017, 2021.

C7. Rupert Freeman, Evi Micha, and Nisarg Shah. Two-Sided Matching Meets Fair Division. *In Proc. of 30th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 203-209, 2021.

C6. Evi Micha and Nisarg Shah. Proportionally Fair Clustering Revisited. *In Proc. of 47th International Colloquium on Automata, Languages and Programming (ICALP)*, 85:1-85:16, 2020.

C5. Evi Micha and Nisarg Shah. Can We Predict the Election Outcome from Sampled Votes? *In Proc. of 34th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 2176-2183, 2020.

C4. Safwan Hossain, Evi Micha, and Nisarg Shah. The Surprising Power of Hiding Information in Facility Location. *In Proc. of 34th AAAI Conference on Artificial Intelligence (AAAI)*, pp. 2168-2175, 2020.

C3. Aris Filos-Ratsikas, Evi Micha, and Alexandros A. Voudouris. The Distortion of Distributed Voting. *In Proc. of 12th International Symposium on Algorithmic Game Theory (SAGT)*, pp. 312-325, 2019.

C2. Ioannis Caragiannis and Evi Micha. A Contribution to the Critique of Liquid Democracy. *In Proc. of 28th International Joint Conference on Artificial Intelligence (IJCAI)*, 2019, pp. 116-122, 2019.

C1. Ioannis Caragiannis and Evi Micha. Learning a Ground Truth Ranking Using Noisy Approval Votes. *In Proc. of 26th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 149-155, 2017.

Working Papers (*authors in alphabetical order)

W2. Luise Ge, Daniel Halpern, Evi Micha, Ariel D. Procaccia, Itai Shapira, Yevgeniy Vorobeychik and Junlin Wu. Axioms for AI Alignment from Human Feedback.

W1. Soroush Ebadian and Evi Micha. Boosting Sortition via Proportional Representation.

Invited Talks

T10. *Fair and Representative Citizens' Assemblies.* Online Social Choice and Welfare Seminar,

April 2024.

T9. *Fair and Efficient Decision-Making for Social Good.* MIT Sloan School of Management, OM Seminar, April 2024.

T8. *Fair and Representative Citizens' Assemblies.* International Seminar Series on Social Choice (COMSOC Video Seminar), March 2024.

T7. *Fair and Efficient Decision-Making for Social Good.* Northeastern University, Theory Seminar, February 2024.

T6. *Fair and Efficient Decision-Making for Social Good.* Columbia University, Theory Seminar, November 2023.

T5. *Proportionally Fair Online Allocation of Public Goods.* INFORMS Session on Fairness in Sequential Decision Making, October 2022.

T4. Member of Panel Discussion at Workshop on Political Economy of Reinforcement Learning (PERLS), in conjunction with NeurIPS, December 2021.

T3. *Fair Algorithms for Multi-Agent Multi-Armed Bandits.* INFORMS Session on Fairness in Sequential Decision Making, October 2021.

T2. *Two-Sided Matching Meets Fair Division.* Workshop on Fair Resource Allocation: Concept, Algorithms and Complexity (FairACAC), in conjunction with EC, July 2021.

T1. *Two-Sided Matching Meets Fair Division.* International Seminar Series on Social Choice (COMSOC Video Seminar), Rump Session, September 2020.

Professional Service

- **Reviewer (Journal):** Artificial Intelligence (AIJ), Information Sciences, Artificial Intelligence Research (JAIR), Autonomous Agents and Multi-Agent System
- **Invited Reviewer:** EC 2022
- **PC Member:** EC 2024, ICML 2024, FAccT 2024, IJCAI 2024, AAMAS 2024, AAAI 2024, NeurIPS 2023, WINE 2023, SAGT 2023, IJCAI 2023, AAAI 2023, FAccT 2022, IJCAI 2022, ITCS 2022, AAAI 2022, AAAI 2021
- **Research Adjudication Committee:** Vector Scholarship in Artificial Intelligence

Teaching Experience

Co-Instructor, *University of Toronto*

Fall '22   Algorithmic Game Theory and Mechanism Design

Teaching Assistant, *University of Toronto*

Fall '18,'19	Algorithmic Game Theory and Mechanism Design
Winter '19	Computational Complexity and Computability
Winter '20,'21,'22	Algorithms for Collective Decision Making
Fall '21,'22, Winter '22 Summer '19, '21, '22	Introduction to Artificial Intelligence
Fall '20	Algorithm Design, Analysis and Complexity

Industry Experience

Sept 2016 - Febr 2017	Business Analyst and Developer, *Cognity*, Greece
Jun 2016 - Aug 2016	Software Engineer Intern, *Mytilineos SA* , Greece
Jul 2014 - Aug 2014	Software Engineer Intern, *Mytilineos SA* , Greece