Ferdinando **Fioretto**

Assistant Professor

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Research Interests : Machine Learning | Differential Privacy | Algorithmic Fairness | AI for Science and Engineering

Professional Experience

Current	**University of Virginia**, *Computer Science*, Charlottesville, VA
Aug. 2023	Assistant Professor
Jul. 2023	**Syracuse University**, *Electrical Engineering & Computer Science*, Syracuse, NY
Jan. 2020	Assistant Professor
Dec. 2019	**Georgia Institute of Technology**, *School of Industrial and System Engineering*, Atlanta, GA
Sep. 2018	Post-doctoral Researcher
Dec. 2018	**University of Michigan**, *Industrial and Operations Engineering*, Ann Arbor, MI
Sep. 2016	Research Fellow

Education and Training

Aug. 2016	**University of Udine** [1], *Computer Science*, Udine, IT
	Ph.D. in Computer Science (with MS in 2012)
Nov. 2009	**University of Parma**, *Computer Science & Mathematics*, Parma, IT
	BS. in Computer Science

Selected Honors and Awards

2022 **Caspar Bowden PET Award**, Privacy Enhancing Technologies (PETs). Link
2022 **NSF CAREER Award**, National Science Foundation. Press
2022 **Google Research Scholar Award**, Google (Privacy). Link
2022 **Amazon Research Award**, Amazon – AWS AI (Responsible AI). Press
2022 **Best Paper Award**, IEEE Transaction of Power Systems. Link
2022 **Early Career Spotlight**, International Joint Conference on Artificial Intelligence (IJCAI). Link
2021 **Early Career Researcher Award**, Association for Constraint Programming. Link
2021 **Mario Gerla Young Investigator Award**, ISSNAF. Press
2021 **Best Paper Award**, IEEE Transaction of Power Systems. Link
2017 **Best AI Dissertation Award**, AI*IA. Press

Other Awards

2025 **Outstanding Research Faculty Award**, University of Virginia. Link
2025 **Fellowship in AI Research**, LaCross Institute for Ethical AI in Business. Link
2023 **ICLR Notable Reviewer Award**, International conference on Learning Representations (ICLR). Link
2023 **NMSU CS Star Award**, New Mexico State University (NMSU). Link
2022 **Lightning Talk (Spotlight)**, Conference on Neural Information Processing Systems (NeurIPS). Link
2022 **Top Reviewer Award**, Conference on Neural Information Processing Systems (NeurIPS). Link
2021 **Outstanding Reviewer Award**, Conference on Neural Information Processing Systems (NeurIPS). Link
2020 **Differentially Private Temporal Map Challenge Award, $5000**, NIST. Press
2020 **Young Investigator Award Nomination**, ISSNAF. Press
2019 **Invited journal paper**, International Joint Conference on Artificial Intelligence (IJCAI). Link
2017 **Most Visionary Workshop Paper Award**, International Conference of Autonomous Agents and Multiagent Systems (AAMAS). Link
2016 **Top Graduate Student Honor's Cord**, NMSU.
2014 **Outstanding Research Assistant Award**, Computer Science, NMSU. Press
2014 **Outstanding Teaching Assistant Nomination**, NMSU.
2013 **Best Student Paper Award**, Computational Methods in System Biology (CMSB). Link

1. Dual degree with New Mexico State University

2013 **Ph.D. Scholarship Award** (∼$50,000), University of Udine.
2013 **Outstanding Teaching Assistant Award**, Computer Science, NMSU. Press
2013 **Computer Science Scholarship** ($1500), NMSU.
2012 **Honors Graduate Recognition for Outstanding Academic Success**, NMSU.
2008 **Erasmus Scholarship** ($\sim \$14,000$), University of Leeds.

Publications

Summary : › *77* Conference papers › *14* Journals articles › *2* Book chapters › *3* Editorial articles › *31* Workshop papers › *20+* Preprints
Total citations : 2730 **H-index** : 27 Google Scholar

Names of students I supervise(d) are prepended with symbol ♟.

Rigorously Peer Reviewed Conferences

c77. ♟Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. *"Learning To Solve Differential Equation Constrained Optimization Problems"*. *Proceedings of the* **International Conference on Learning Representations (ICLR)**, 2025. Acceptance Rate : 32.02%.

c76. ♟Jacob K. Christopher, ♟Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. *"Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion"*. *Proceedings of the* **Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL)**, 2025. Acceptance Rate : unkown.

c75. **Ferdinando Fioretto**, Diptangshu Sen, Juba Ziani. *"Differentially Private Data Release on Graphs : Inefficiencies and Unfairness"*. *Proceedings of the* **International Conference on Artificial Intelligence and Statistics (AISTATS)**, 2025. Acceptance Rate : 31.3%.

c74. ♟Joonhyuk Ko, Juba Ziani, ♟Saswat Das, Matt Williams, **Ferdinando Fioretto**. *"Fairness Issues and Mitigations in (Differentially Private) Socio-demographic Data Processes"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, 2025. Acceptance Rate : 19%.
🏆 [Oral] (5% of the accepted papers.).

c73. FairDP : Certified Fairness with Differential Privacy. *"Khang Tran,* **Ferdinando Fioretto***, Issa Khalil, My T. Thai, NhatHai Phan"*. In **IEEE Secure and Trustworthy Machine Learning Conference (SaTML 2025)**, 2025. Acceptance Rate : 29.4%.

c72. ♟Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. *"Constrained Synthesis with Projected Diffusion Models"*. *Proceedings of the* **Conference on Neural Information Processing Systems (NeurIPS)**, 2024. Acceptance Rate : 25.8%.

c71. ♟Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. *"Physics-Aware Generative Diffusion Models for Microstructure Material Design"*. **AI 4 Material science, at NeurIPS**, 2024. Acceptance Rate : 39%.
🏆 [Oral] (6% of the accepted papers.).

c70. ♟Jacob K. Christopher, ♟Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. *"Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion"*. **Efficient Natural Language and Speech Processing (ENLSP), at NeurIPS**, 2024. Acceptance Rate : 29%.

c69. Ethan King, ♟James Kotary, **Ferdinando Fioretto**, Jan Drgona. *"Metric Learning to Accelerate Convergence of Operator Splitting Methods for Differentiable Parametric Programming"*. **63rd IEEE Conference on Decision and Control (CDC)**, 2024. Acceptance Rate : 56.7%.

c68. ♟James Kotary, ♟Vincenzo Di Vito, ♟Jacob K. Christopher, Pascal Van Hentenryck, Ferdinando Fioretto. *"Predict-Then-Optimize by Proxy : Learning Joint Models of Prediction and Optimization"*. *Proceedings of the* **European Conference of Artificial Intelligence (ECAI)**, 2024. Acceptance Rate : 23.3%.

c67. ♟Sree Harsha Nelaturu, ♟Nishaanth Kanna Ravichandran, ♟Cuong Tran, Sara Hooker, and **Ferdinando Fioretto**. *"On The Fairness Impacts of Hardware Selection in Machine Learning"*. *Proceedings of the* **International Conference on Machine Learning (ICML)**, 2024. Acceptance Rate : 27.5%.

c66. ♟Saswat Das, Marco Romanelli, **Ferdinando Fioretto**. *"Disparate Impact on Group Accuracy of Linearization for Private Inference"*. *Proceedings of the* **International Conference on Machine Learning (ICML)**, 2024. Acceptance Rate : 27.5%.

c65. ♟My H. Dinh, ♟James Kotary, **Ferdinando Fioretto**. *"End-to-End Learning for Fair Multiobjective Optimization Under Uncertainty"*. *Proceedings of the* **Conference of Uncertainty on Artificial Intelligence (UAI)**, 2024. Acceptance Rate : 27.0%.

c64. Cuong Tran, Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. *"Fairness Increases Adversarial Vulnerability"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2024. Acceptance Rate : 13.9%.

c63. My H. Dinh, James Kotary, **Ferdinando Fioretto**. *"Learning Fair Ranking Policies via Differentiable Optimization of Ordered Weighted Averages"*. *Proceedings of the* **ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)**, 2024. Acceptance Rate : 24.3%.

c62. **Ferdinando Fioretto**, Keyu Zhu, Pascal Van Hentenryck, Saswat Das, Christine Task. *"Finding ϵ and δ of Traditional Disclosure Control Systems"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, 2024. Acceptance Rate : 23.75%.

c61. My H. Dinh, James Kotary, **Ferdinando Fioretto**. *"Differentiable Approximations of Fair OWA Optimization"*. **Workshop on Differentiable Almost Everything, at ICML**, 2024. Acceptance Rate : 27.0%.

c60. **Ferdinando Fioretto**. *"The Data Minimization Principle in Machine Learning"*. **Workshop on Generative AI and Law, at ICML**, 2024. Acceptance Rate : 30.0%.

c60. Cuong Tran and **Ferdinando Fioretto**. *"Data Minimization at Inference Time"*. *Proceedings of the* **Conference on Neural Information Processing Systems (NeurIPS)**, 2023. Acceptance Rate : 23.0%.

c59. Vladimir Dvorkin and **Ferdinando Fioretto**. *"Price-Aware Deep Learning for Electricity Markets"*. **Tackling Climate Change with Machine Learning, at NeurIPS**, 2023. Acceptance Rate : 35.0%.

c58. James Kotary, My H. Dinh, **Ferdinando Fioretto**. *"Folded Optimization for End-to-End Model-Based Learning"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2023. Acceptance Rate : 15.0%.

c57. James Kotary, Vincenzo Di Vito, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"SF-PATE : Scalable, Fair, and Private Aggregation of Teacher Ensembles"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2023. Acceptance Rate : 15.0%.

c56. James Kotary, Vincenzo Di Vito, **Ferdinando Fioretto**. *"End-to-End Combinatorial Ensemble Learning"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2023. Acceptance Rate : 15.0%.

c55. Cuong Tran, **Ferdinando Fioretto**. *"On the Fairness Impacts of Private Ensembles Models"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2023. Acceptance Rate : 15.0%.

c54. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Load Encoding for Learning AC-OPF"*. Proceedings of the **IEEE PES General Meeting (PES)**, 2023. Acceptance Rate : N/A.

c53. My H. Dinh, **Ferdinando Fioretto**, Mostafa Mohammadian, and Kyri Baker. *"An Analysis of the Reliability of AC Optimal Power Flow Deep Learning Proxies"*. **IEEE PES Innovative Smart Grid Technologies**, 2023. Acceptance Rate : unknown.

c52. James Kotary, Vincenzo Di Vito, **Ferdinando Fioretto**. *"End-to-End Optimization and Learning for Multiagent Ensembles"*. *Proceedings of the* **International Conference on Autonomous Agents and Multiagent Systems (AAMAS)**, 2023. Acceptance Rate : 40.0%.

c51. Cuong Tran, **Ferdinando Fioretto**, Jung-Eun Kim, Rakshit Naidu. *"Pruning has a disparate impact on model accuracy"*. *Proceedings of the* **Conference on Neural Information Processing Systems (NeurIPS)**, 2022. Acceptance Rate : 25.6%.

🏆 [Spotlight] (∼3% of all paper submissions (10,411, in 2022).).

c50. Keyu Zhu, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Post-processing of Differentially Private Data : A Fairness Perspective"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2022. Acceptance Rate : 15.0%.

c49. **Ferdinando Fioretto**, Cuong Tran, Keyu Zhu, Pascal Van Hentenryck. *"Differential Privacy and Fairness in Decisions and Learning Tasks : A Survey"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2022. Acceptance Rate : 18.0% (survey track).

c48. **Ferdinando Fioretto**. *"Integrating Machine Learning and Optimization to Boost Decision Making"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 2022. Acceptance Rate : Invited.

🏆 [Early Career Spotlight] (Accompanying paper.).

c47. James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Ziwei Zhu. *"End-to-end Learning for Fair Ranking Systems"*. *Proceedings of the* **ACM Web Conferences (WWW)**, 2022. Acceptance Rate : 17.0%.

c46. James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Fast Approximations for Job Shop Scheduling : A Lagrangian Dual Deep Learning Method"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, 2022. Acceptance Rate : 15.0%.

c45. Lesia Mitridati, Emma Romei, Gabriela Hug, **Ferdinando Fioretto**. *"Differentially-Private Heat and Electricity Markets Coordination"*. *Proceedings of the* **International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)**, 2022. Acceptance Rate : N/A.

c44. Mostafa Mohammadian, Kyri Baker, My H. Dinh, **Ferdinando Fioretto**. *"Learning Solutions for Intertemporal Power Systems Optimization with Recurrent Neural Networks"*. *Proceedings of the* **International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)**, 2022. Acceptance Rate : N/A.

c43. Cuong Tran, My H. Dinh, **Ferdinando Fioretto**. *"Differentially Private Deep Learning under the Fairness Lens"*. *Proceedings of the* **Conference on Neural Information Processing Systems (NeurIPS)**, 2021. Acceptance Rate : 26.0%.

c42. James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Learning Hard Optimization Problems : A Data Generation Perspective"*. *Proceedings of the* **Conference on Neural Information Processing Systems (NeurIPS)**, 2021. Acceptance Rate : 26.0%.

c41. Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck, Zhiyan Yao. *"Decision Making with Differential Privacy under the Fairness Lens"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 560–566, 2021. Acceptance Rate : 13.9%.

[Winner of the 2022 Caspar Bowden PET Award] (Selected among all papers about Privacy Enhancing Technologies published in international conferences between 2020–2022.).

c40. James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Bryan Wilder. *"End-to-End Constrained Optimization Learning : A Survey"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 4475–4482, 2021. Acceptance Rate : 30.1%.

c39. Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. *"Bias and Variance of Post-processing in Differential Privacy"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, 11177–11184, 2021. Acceptance Rate : 21.0%.

c38. Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Differentially Private and Fair Deep Learning : A Lagrangian Dual Approach"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, 9932–9939, 2021. Acceptance Rate : 21.0%.

c37. Anudit Nagar, Cuong Tran, **Ferdinando Fioretto**. *"A Privacy-Preserving and Accountable Multi-agent Learning Framework"*. *Proceedings of the* **International Conference on Autonomous Agents and Multiagent Systems (AAMAS)**, 1605–1606, 2021. Acceptance Rate : 40.0%.

c36. **Ferdinando Fioretto. "Constrained-based Differential Privacy". Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP), 1868–8969, 2021. Acceptance Rate : Invited.**

c35. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson. *"Differentially Private Optimal Power Flow for Distribution Grids"*. **IEEE PowerTech**, 2021. Acceptance Rate : N/A.

c34. **Ferdinando Fioretto**, Pascal Van Hentenryck, Terrence W.K. Mak, Cuong Tran, Federico Baldo, Michele Lombardi. *"A Lagrangian Dual Framework for Deep Neural Networks with Constraints"*. *Proceedings of the* **European Conference on Machine Learning (ECML)**, 18–135, 2020. Acceptance Rate : 19.0%.

c33. **Ferdinando Fioretto**, Lesia Mitridati, Pascal Van Hentenryck. *"Differential Privacy Stackebelg Games"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 3480–3486, 2020. Acceptance Rate : 12.6%.

c32. **Ferdinando Fioretto**, Pascal Van Hentenryck. *"OptStream : Releasing Time Series Privately"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, 5135–5139, 2020. Acceptance Rate : [Invited to the IJCAI journal track].

(selected papers only.) .

c31. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Privacy-Preserving Obfuscation for Distributed Power Systems"*. *Proceedings of the* **Power Systems Computation Conference (PSCC)**, 2020. Acceptance Rate : 20.5%.

c30. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. *"Predicting AC Optimal Power Flows : Combining Deep Learning and Lagrangian Dual Methods"*. *Proceedings of the* **AAAI Conference on Artificial Intelligence (AAAI)**, pages 630–637, 2020. Acceptance Rate : 20.6%.

c29. Atena Tabakhi, William Yeoh, **Ferdinando Fioretto**. *"The Smart Appliance Scheduling Problem : A Bayesian Optimization Approach"*. *Proceedings of the* **International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)**, 100–115, 2020. Acceptance Rate : 38.0%.

c28. **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Privacy-Preserving Federated Data Sharing"*. *Proceedings of the* **International Conference on Autonomous Agents and Multiagent Systems (AAMAS)**, pages 638–646, 2019. Acceptance Rate : 24.0%.

c27. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. *"Privacy-Preserving Obfuscation of Critical Infrastructure Networks"*. *Proceedings of the* **International Joint Conference on Artificial Intelligence (IJCAI)**, pages 1086–1092, 2019. Acceptance Rate : 17.9%.

c26. **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Differential Privacy of Hierarchical Census Data : An Optimization Approach"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 639–655, 2019. Acceptance Rate : 37.0%.

🏆 [Invited to Constraint journal] (selected papers – declined.).

c25. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. *"Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph"*. *Proceedings of the* International Conference on Principles and Practice of Multi-Agent Systems (PRIMA), pages 106–122, 2018. Acceptance Rate : 26.2%.

c24. **Ferdinando Fioretto**, Chansoo Lee, Pascal Van Hentenryck. *"Constrained-based Differential Privacy for Private Mobility"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 1405–1413, 2018. Acceptance Rate : 25.2%.

c23. Khoi Hoang, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Roie Zivan. *"A Large Neighboring Search Schema for Multi-Agent Optimization"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 688–706, 2018. Acceptance Rate : 33.0%.

c22. **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Constrained-based Differential Privacy : Releasing Optimal Power Flow Benchmarks Privately"*. *Proceedings of the* International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR), pages 215–231, 2018. Acceptance Rate : 48.0%.

c21. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. *"Constraint Composite Graph-Based Lifted Message Passing for Distributed Constraint Optimization Problems"*. International Symposium on Artificial Intelligence and Mathematics (ISAIM), 2018. Acceptance Rate : N/A.

c20. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Ye Ma, Satishkumar J. Ranade. *"A Distributed Constraint Optimization (DCOP) Approach to the Economic Dispatch with Demand Response"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 999–1007, 2017. Acceptance Rate : 24.9%.

c19. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"A Multiagent System Approach to Scheduling Devices in Smart Homes"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 981–989, 2017. Acceptance Rate : 24.9%.

c18. Khoi Hoang, Ping Hou, **Ferdinando Fioretto**, Makoto Yokoo, William Yeoh, Roie Zivan. *"Infinite-Horizon Proactive Dynamic DCOPs"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 212–220, 2017. Acceptance Rate : 24.9%.

c17. Atena M. Tabakhi, Tiep Le, **Ferdinando Fioretto**, William Yeoh. *"Preference Elicitation for DCOPs"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 278–296, 2017. Acceptance Rate : 43.0%.

c16. Khoi Hoang, **Ferdinando Fioretto**, Ping Hou, Makoto Yokoo, William Yeoh, Roie Zivan. *"Proactive Dynamic Distributed Constraint Optimization Problems"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 597–605, 2016. Acceptance Rate : 24.9%.

c15. Tiep Le, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Tran Cao Son. *"ER-DCOPs : A Framework for Distributed Constraint Optimization Problems With Uncertainty"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 606–614, 2016. Acceptance Rate : 24.9%.

c14. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"Multi-Variable Agent Decompositions for DCOPs"*. *Proceedings of the* AAAI Conference on Artificial Intelligence (AAAI), pages 2480–2486, 2016. Acceptance Rate : 25.7%.

c13. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"A Dynamic Programming-Based MCMC Framework for Solving DCOPs with GPUs"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 813–831, 2016. Acceptance Rate : 35.0%.

c12. **Ferdinando Fioretto**, Tiep Le, Enrico Pontelli, William Yeoh, Tran Cao Son. *"Exploiting GPUs in Solving (Distributed) Constraint Optimization Problems with Dynamic Programming"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 121–139, 2015. Acceptance Rate : 48.7%.

c11. **Ferdinando Fioretto**, Federico Campeotto, Agostino Dovier, Enrico Pontelli, William Yeoh. *"Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 1835–1836, 2015. Acceptance Rate : 46.0%.

c10. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"Multi-Variable Agents Decomposition for DCOPs to Exploit Multi-Level Parallelism"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 1823–1824, 2015. Acceptance Rate : 46.0%.

c9. **Ferdinando Fioretto**. *"Exploiting the Structure of Distributed Constraint Optimization Problems"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 2007–2008, 2015. Acceptance Rate : N/A.

c8. **Ferdinando Fioretto**. *"Exploiting the Structure of Distributed Constraint Optimization Problems"*. *Proceedings of the* AAAI Conference on Artificial Intelligence (AAAI), pages 4233–4234, 2015. Acceptance Rate : N/A.

c7. (α-β) Federico Campeotto, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"A GPU Implementation of Large Neighborhood Search for Solving Constraint Optimization Problems"*. *Proceedings of the* European Conference of Artificial Intelligence (ECAI), pages 189–194, 2014. Acceptance Rate : 28.0%.

c6. **Ferdinando Fioretto**, Tiep Le, William Yeoh, Enrico Pontelli, Tran Cao Son. *"Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 307–323, 2014. Acceptance Rate : 49.8%.

c5. (α-β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"Exploring the Use of GPUs in Constraint Solving"*. *Proceedings of the* Practical Aspects of Declarative Languages (PADL), pages 152–167, 2014. Acceptance Rate : 55.0%.

c4. **Ferdinando Fioretto**, Federico Campeotto, Luca Da Rin Fioretto, William Yeoh, Enrico Pontelli. *"GD-Gibbs : A GPU-based Sampling Algorithm for Solving Distributed Constraint Optimization Problems"*. *Proceedings of the* International Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 1339–1340, 2014. Acceptance Rate : 46.0%.

c3. **Ferdinando Fioretto**, Enrico Pontelli. *"Constraint Programming in Community-based Gene Regulatory Network Inference"*. *Proceedings of the* Computational Methods in System Biology (CMSB), pages 135–149, 2013. Acceptance Rate : 55.0%.

🏆 [Best Student Paper Award] .

c2. (α-β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"A Filtering Technique for Fragment Assembly-based Proteins Loop Modeling with Constraints"*. *Proceedings of the* International Conference on Principles and Practice of Constraint Programming (CP), pages 850–866, 2012. Acceptance Rate : 36.0%.

c1. Michael R. Best, **Ferdinando Fioretto**, Alessandro Dal Palù, Enrico Pontelli, Tran Son, TuShun R. Powers, Elba E. Serrano. *"The role of secondary and tertiary structure prediction in determining the function of novel genes found in Xenopus Leavis"*. Neuroscience, 2011, (518.20/ZZ45). Acceptance Rate : N/A.

Journals

j14. Jayanta Mandi, ♣James Kotary, Senne Berden, Maxime Mulamba, Victor Bucarey, Tias Guns, **Ferdinando Fioretto**. *"Decision-Focused Learning : Foundations, State of the Art, Benchmark and Future Opportunities"*. Journal of Artificial Intelligence Research (JAIR), (81), pages 1623–1701, 2024.

j13. Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. *"Gradient-Enhanced Physics-Informed Neural Networks for Power Systems Operational Support"*. Electric Power Systems Research (223), pages 109551, 2023.

j12. Khoi D. Hoang, **Ferdinando Fioretto**, Ping Hou, William Yeoh, Makoto Yokoo, Roie Zivan. *"Proactive Dynamic Distributed Constraint Optimization Problems"*. Journal of Artificial Intelligence Research (JAIR), (73), pages 179-225, 2022.

j11. **Ferdinando Fioretto**, Pascal Van Hentenryck, Keyu Zhu. *"Differential Privacy of Hierarchical Census Data : An Optimization Approach"*. Artificial Intelligence Journal (AIJ), (296), pages 103475, 2021.

j10 Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour. *"Differentially Private Optimal Power Flow for Distribution Grids"*. IEEE Transactions on Power Systems, 36(3), pages 2186–2196, 2021.

🏆 [Best IEEE TPS paper award] (Given to 8 out of all TPS papers published in 2019–2021.).

j9. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. *"Differential Privacy for Power Grid Obfuscation"*. IEEE Transactions on Smart Grids, 11(2), pages 1356–1366, 2020.

j8 Terrence W.K. Mak, **Ferdinando Fioretto**, ♣Lyndon Shi, Pascal Van Hentenryck. *"Privacy-Preserving Power System Obfuscation : A Bilevel Optimization Approach"*. IEEE Transactions on Power Systems, 35(2), pages 1627–1637, 2020.

🏆 [Best IEEE TPS paper award] Given to 7 out of all TPS papers published in 2018–2020)..

j7 **Ferdinando Fioretto**, Pascal Van Hentenryck. *"OptStream : Releasing Time Series Privately"*. Journal of Artificial Intelligence Research (JAIR), (65) pages 423–456, 2019.

🏆 [Invited to IJCAI 2020 journal track] .

j6 **Ferdinando Fioretto**, Agostino Dovier, Enrico Pontelli. *"Distributed Multi-Agent Optimization for Smart Grids and Home Automation"*. **Intelligenza Artificiale (IA)**, 12 (2), pages : 67–87, 2019.

🏆 [Best 2018 Thesis in Artificial Intelligence (AI*IA)] (Accompanying paper.).

j5. **Ferdinando Fioretto**, Enrico Pontelli, William Yeoh. *"Distributed Constraint Optimization Problems and Applications : A Survey"*. **Journal of Artificial Intelligence Research (JAIR)**, 61, pages 623–698, 2018.

j4. **Ferdinando Fioretto**, William Yeoh. *"AI Buzzwords Explained : Distributed Constraint Optimization Problems"*. **AI Matters**, 3 (4), pages 8–13, 2018.

j3. **Ferdinando Fioretto**, Enrico Pontelli, William Yeoh, Rina Dechter. *"Accelerating Exact and Approximate Inference for (Distributed) Discrete Optimization with GPUs"*. **Constraints**, 23 (1), pages 1–43, 2018.

j2. **Ferdinando Fioretto**, Agostino Dovier, Enrico Pontelli. *"Constrained Community-based Gene Regulatory Network Inference"*. **ACM Transactions on Modeling and Computer Simulation (TOMACS)**, 25 (2), pages 11:1–11:26, 2015.

j1. (α-β)[2] Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"A Constraint Solver for Flexible Protein Models"*. **Journal of Artificial Intelligence Research (JAIR)**, 48, pages 953–1000, 2013.

Book Chapters and Editorial Articles

j6. **Ferdinando Fioretto**, Pascal Van Hentenryck, and Juba Ziani. *"Differential Privacy Overview and Fundamental Techniques"*. **DP Book**, forthcoming.

j5. **Ferdinando Fioretto**, et al.. *"Reports of the Workshops Held at the 2022 AAAI Conference on Artificial Intelligence"*. **AI Magazine**, 2022.

j4. **Ferdinando Fioretto**, et al.. *"Reports of the Workshops Held at the 2021 AAAI Conference on Artificial Intelligence"*. **AI Magazine**, 2021.

j3. **Ferdinando Fioretto**, et al.. *"Reports of the Workshops Held at the 2020 International Association for the Advancement of Artificial Intelligence Conference on Web and Social Media"*. **AI Magazine**, 41(4) 2020.

j2 William Kluegel, Muhammad A. Iqbal, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs"*. *Lecture Notes in Computer Science (LCNS)*, LNCS, volume 10643 pages 125–142, Springer, 2017.

🏆 Visionary Paper Award (AAMAS workshop series).

j1. Moinul M.P. Chowdhury, Russell Y. Folk, **Ferdinando Fioretto**, Christopher Kiekintveld, William Yeoh. *"Investigation of Learning Strategies for the SPOT Broker in Power TAC"*. *AgentMediated Electronic Commerce : Designing Trading Strategies and Mechanisms for Electronic Markets*, volume 271 of Lecture Notes in Business Information Processing, pages 96–111, Springer, 2017.

Peer Reviewed Workshops

w31. Joonhyuk Ko, Juba Ziani, Saswat Das, Matt Williams, **Ferdinando Fioretto**. *"Fairness Issues and Mitigations in (Differentially Private) Socio-demographic Data Processes"*. **AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI**, 2025.

🏆 [Oral].

w30. Low-rank finetuning for LLMs : A fairness perspective. *"Saswat Das, Marco Romanelli, Cuong Tran, Zarreen Reza, Bhavya Kailkhura,* **Ferdinando Fioretto***"*. AAAI CoLoRAI Workshop, 2025.

w29. Jinhao Liang, Jacob Christopher, Sven Koenig, **Ferdinando Fioretto**. *"Multi-Agent Path Finding in Continuous Spaces with Projected Diffusion Models"*. **Combining AI and OR/MS for Better Trustworthy Decision Making, at AAAI**, 2025.

🏆 [Oral].

w28. Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. *"OPF-Net : Real-Time Stability Constrained AC Optimal Power Flow"*. **AAAI Bridge on Explainable AI, Energy and Critical Infrastructure Systems**, 2025.

w27. Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. *"Physics-Aware Diffusion Models for Micro-structure Material Design"*. **ELLIS ML for Molecules and Materials in the Era of LLMs Workshop, 2024**.

w26. Jacob K. Christopher, Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. *"Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion"*. **Efficient Natural Language and Speech Processing (ENLSP) workshop – at NeurIPS**, 2024.

w25. Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. *"Constrained Synthesis with Projected Diffusion Models"*. **Machine Learning and the Physical Sciences Workshop – at NeurIPS**, 2024.

2. Author list is order alphabetically.

w24. Prakhar Ganesh, Cuong Tran, Reza Shokri, **Ferdinando Fioretto**. *"The Data Minimization Principle in Machine Learning"*. **Workshop on Regulatory ML – at NeurIPS**, 2024.

w23. My H. Dinh, James Kotary, **Ferdinando Fioretto**. *"Differentiable Approximations of Fair OWA Optimization"*. **Workshop on Differentiable Almost Everything – at ICML**, 2024.

w22. **Ferdinando Fioretto**. *"The Data Minimization Principle in Machine Learning"*. **Workshop on Generative AI and Law – at ICML**, 2024.

w21. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour. *"Privacy-Preserving Convex Optimization : When Differential Privacy Meets Stochastic Programming"*. **Workshop on Climate Change AI – at NeurIPS**, 2023.

w20. Cuong Tran, My H. Dinh, **Ferdinando Fioretto**. *"A Fairness Analysis on Private Aggregation of Teacher Ensembles"*. **AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI**, 2022.

Spotlight Paper.

w19. Cuong Tran, **Ferdinando Fioretto**. *"Decision Making with Differential Privacy under the Fairness Lens"*. **Theory and Practice of Differential Privacy (TPDP) – at ICML**, 2021.

w18. Anudit Nagar, Cuong Tran, **Ferdinando Fioretto**. *"A Privacy-Preserving and Accountable Multi-agent Learning Framework"*. **International Workshop on Learning and Optimization in Multi-Agent Systems (OPTLearnMAS)–at AAMAS**, 2021.

w17. Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Differentially Private and Fair Deep Learning : A Lagrangian Dual Approach"*. **AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI**, 2021.

w16. **Ferdinando Fioretto**, Cuong Tran, Pascal Van Hentenryck. *"Lagrangian Duality for Constrained Deep Learning"*. **INFORMS**, 2020.

w15. Lesia Mitridati, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Differential Privacy For Stackelberg Games : An Application To Gas And Electricity Markets"*. **INFORMS**, 2020.

w14. Khoi Hoang, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Roie Zivan. *"A Large Neighboring Search Schema for Multi-Agent Optimization"*. **International Workshop on Optimization in Multi-Agent Systems (OPTMAS)–at AAMAS**, 2019.

w13. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. *"Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph"*. **International Workshop on Optimisation in Multi-Agent Systems (OptMAS)–at AAMAS**, 2018.

w12. William Kluegel, Muhammad Aamir Iqbal, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs"*. **International Workshop on Optimisation in Multi-Agent Systems (OPTMAS)–at AAMAS**, 2017.

w11. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. *"A Multiagent System Approach to Scheduling Devices in Smart Homes"*. **Workshop on AI for Smart Grids and Smart Buildings (AISGSB)–at AAAI**, 2017.

w10. Atena M. Tabakhi, **Ferdinando Fioretto**, William Yeoh. *"A Preliminary Study on Preference Elicitation in DCOPs for Scheduling Devices in Smart Buildings"*. **10th Workshop on Advances in Preference Handling (MPREF)–at IJCAI**, 2016.

w9. Porag Chowdhury, Russell Y. Folk, **Ferdinando Fioretto**, Christopher Kiekintveld, William Yeoh. *"Investigation of Learning Strategies for the SPOT Broker in Power TAC"*. **International Workshop on Agent Mediated Electronic Commerce and Trading Agents Design and Analysis (AMEC/TADA)–at AAMAS**, 2016.

w8. Khoi Hoang, **Ferdinando Fioretto**, Ping Hou, Makoto Yokoo, William Yeoh, Roie Zivan. *"Proactive Dynamic DCOPs"*. **Workshop on AI for Smart Grids and Smart Buildings (AISGSB)–at AAAI**, 2016.

w7. **Ferdinando Fioretto**, Federico Campeotto, Agostino Dovier, Enrico Pontelli, William Yeoh. *"Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems"*. In **International Workshop on Optimization in Multi-Agent Systems (OptMAS)– at AAMAS**, 2015.

w6. **Ferdinando Fioretto**, Tiep Le, William Yeoh, Enrico Pontelli, Tran Cao Son. *"Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems"*. In **International Workshop on Optimization in Multi-Agent Systems (OptMAS)– at AAMAS**, 2015.

w5. (α-β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"Experimenting with FIASCO for protein structure prediction"*. **Workshop on Constraint Based Methods for Bioinformatics (WCB)–at CP**, 2014.

w4. (α-β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"Towards a complete constraint solver on GPU"*. In **Workshop on Parallel Methods for Search & Optimization (ParSearchOpt)–at ECAI**, 2014.

w3. **Ferdinando Fioretto**, Enrico Pontelli. *"Community-based Gene Regulatory Network Inference via Constraint Programming"*. **Workshop on Constraint Based Methods for Bioinformatics (WCB)–at CP**, 2013.

w2. (α-β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. *"Protein Loop Modelling via Constraints and Fragment Assembly"*. **Workshop on Constraint Based Methods for Bioinformatics (WCB)–at CP**, 2012.

w1. (α-β) Michael R. Best, Kabi Bhattarai, Federico Campeotto, Alessandro Dal Palù, Hung Dang, Agostino Dovier, **Ferdinando Fioretto**, Federico Fogolari, Tiep Le, Enrico Pontelli. *"Introducing FIASCO : Fragment-based Interactive Assembly for protein Structure prediction with COnstraints"*. **Workshop on Constraint Based Methods for Bioinformatics (WCB)–at CP**, 2011.

Pre-prints and In-press

w10. Jinhao Liang, Jacob K Christopher, Sven Koenig, **Ferdinando Fioretto**. *"Simultaneous Multi-Robot Motion Planning with Projected Diffusion Models"*. **ICML** (under review), 2025.

w9. Stefano Zampini, Jacob K Christopher, Luca Oneto, Davide Anguita, **Ferdinando Fioretto**. *"Training-Free Constrained Generation With Stable Diffusion Models"*. **ICML** (under review), 2025.

w8. Prince Zizhuang Wang, Jinhao Liang, Shuyi Chen, **Ferdinando Fioretto**, Shixiang Zhu. *"Gen-DFL : Decision-Focused Generative Learning for Robust Decision Making"*. **ICML** (under review), 2025.

w7. Jinhao Liang, Jacob K. Christopher, Sven Koenig, Ferdinando Fioretto. *"Multi-Agent Path Finding in Continuous Spaces with Projected Diffusion Models"*. **CoRR abs**/2412.17993, 2025.

w6. Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. *"OPF-Net : Real-Time Stability Constrained AC Optimal Power Flow"*. **IEEE Transactions on Power Systems** (revision), 2025.

w5. My H. Dinh, James Kotary, Lauryn P. Gouldin, William Yeoh, **Ferdinando Fioretto**. *"End-to-End Optimization and Learning of Fair Court Schedules"*. **FAccT** (under review), 2025.

w4. Saswat Das, Marco Romanelli, Cuong Tran, Zarreen Reza, Bhavya Kailkhura, **Ferdinando Fioretto**. *"Low-rank finetuning for LLMs : A fairness perspective"*. **FAccT** (under review), 2025.

w3. Prakhar Ganesh, Cuong Tran, Reza Shokri, **Ferdinando Fioretto**. *"The Data Minimization Principle in Machine Learning"*. **FAccT** (under review), 2025.

w2. James Kotary, **Ferdinando Fioretto**. *"Learning Constrained Optimization with Deep Augmented Lagrangian Methods"*. **CoRR abs**/2403.03454, 2024.

w1. James Kotary, Jacob K. Christopher, My H Dinh, and **Ferdinando Fioretto**. *"Analyzing and Enhancing the Backward-Pass Convergence of Unrolled Optimization"*. **INFORMS journal of computing** (under review), 2024.

Archived and Extended Versions of Published Papers

w12. My H. Dinh, **Ferdinando Fioretto**. *"Context-Aware Differential Privacy for Language Modeling"*. **CoRR abs**/2301.12288, 2023.

w11. Sawinder Kaur, **Ferdinando Fioretto**, Asif Salekin. *"Deadwooding : Robust Global Pruning for Deep Neural Networks"*. **CoRR abs**/2202.05226, 2022.

w10. My H. Dinh, **Ferdinando Fioretto**, Mostafa Mohammadian, Kyri Baker. *"Towards Understanding the Unreasonable Effectiveness of Learning AC-OPF Solutions"*. **CoRR abs**/2111.11168, 2021.

w9. Cuong Tran, My H. Dinh, **Ferdinando Fioretto**. *"Differentially Private Deep Learning under the Fairness Lens"*. **CoRR abs**/2106.02674, 2021 (**extended NeurIPS-21 version**).

w8. Anudit Nagar, Cuong Tran, **Ferdinando Fioretto**. *"A Privacy-Preserving and Trustable Multi-agent Learning Framework"*. **CoRR abs**/2106.01242, 2021. (**extended AAMAS-21 version**).

w7. James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Bryan Wilder. *"End-to-End Constrained Optimization Learning : A Survey"*. **CoRR abs**/2103.16378, 2021. (**extended IJCAI-21 version**).

w6. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. *"Load Embeddings for Scalable AC-OPF Learning"*. **CoRR abs**/2101.03973, 2021.

w5. Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. *"Bias and Variance of Post-processing in Differential Privacy"*. **CoRR abs**/2010.04327, 2020 (**extended AAAI-21 version**).

w4. Minas Chatzos, **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. *"High-Fidelity Machine Learning Approximations of Large-Scale Optimal Power Flow"*. **CoRR abs**/2006.16356, 2020.

w3. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson. *"Differentially Private Convex Optimization with Feasibility Guarantees"*. **CoRR abs**/2006.12338, 2020.

w2. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. *"Predicting AC Optimal Power Flows : Combining Deep Learning and Lagrangian Dual Methods"*. **CoRR abs**/1909.10461, 2019 (**extended AAAI-20 version**).

w1. **Ferdinando Fioretto**, Terrence W. K. Mak, Pascal Van Hentenryck. *"Privacy-Preserving Obfuscation of Critical Infrastructure Networks"*. **CoRR abs**/1905.09778, 2019 (**extended IJCAI-19 version**).

Teaching

Responsible AI (CS 7000), *University of Virginia*

Spring 2024	Course Evaluation : 4.8 (class), 4.75 (instructor) / 5.00

Artificial Intelligence (CS 4710), *University of Virginia*

Fall 2023	Course Evaluation : 4.33 (class), 4.5 (instructor) / 5.00
Fall 2024	Course Evaluation : 4.21 (class), 4.22 (instructor) / 5.00

Security and Privacy of Machine Learning (CS 700), *Syracuse University*

Spring 2020	Course Evaluation : 4.55/5.00 (median 5.00)
Spring 2021	Course Evaluation : 4.46/5.00 (median 5.00)
Spring 2022	Course Evaluation : 4.93/5.00 (median 5.00)

Introduction to Artificial Intelligence (CIS 467), *Syracuse University*

Fall 2020	Course Evaluation : 4.56/5.00 (median 5.00)
Fall 2021	Course Evaluation : 4.48/5.00 (median 5.00)
Fall 2022	Course Evaluation : 4.45/5.00 (median 5.00)
Fall 2023	Course Evaluation : 4.15/5.00 (median 5.00)

Discrete Mathematics (CS 375), *Syracuse University*

Spring 2023	Course Evaluation : 4.60/5.00 (median 5.00)

Mentoring

Current PhD Students

- **Vincenzo Di Vito** (UVA CS) *Fall 2022*
  Research : Physics Informed Machine Learning.
- **My Dinh** (UVA CS) *Spring 2021*
  Research : Deep Learning, Optimization, Fairness.
- **Saswat Das** (UVA CS) *Fall 2023*
  Research : Responsible AI, Differential Privacy.
- **Jacob K. Christopher** (UVA CS) *Fall 2023*
  Research : Generative AI for Science, Safety.
  Awards : [Best paper at LLM workshop, UVA] [2 Oral at NeurIPS-24 workshops]
- **Jinhao Liang** (UVA CS) *Fall 2024*
  Research : Generative AI, Differentiable Optimization.
- **Michael Cardei** (UVA CS) *Fall 2024*
  Research : LLMs, Generative AI, Safety.
  Awards : Best paper at LLM workshop, UVA
- **Liyuan Hou (rotation)** (UVA CS) *Spring 2025*
  Research : Diffusion Models for Science.

Current MS and BS Students

- **Peggy Cui**, (MS, UVA CS) *Spring 2024*
- **Jameson Sandler** (BS, UVA CS) *Fall 2024*
- **Joonhyuk Ko** (BS, UVA CS) *Fall 2023*
  Awards : [CRA outstanding undergraduate research honorable mention] [Oral at AAAI]

Current visitors

- **Stefano Zampini**, (PhD, University of Genova) *Summer 2024*
- **Lea Demelius** (PhD, Technical University of Graz) *Spring 2025*

Past (Graduated) Students

- **James Kotary, PhD** (UVA, CS) *Fall 2020 – Fall 2024*
  Research : Integration of Deep Learning and Optimization.

Dissertation Title : Integrating Constrained Optimization with Machine Learning to Enhance Data-Driven Decision Making
Next position : Research Scientist, Pacific Northwest National Laboratory.

- **Cuong Tran, PhD** (Syracuse University, CISE) *Spring 2020 – Spring 2023*
  Research : Differential Privacy and Fairness.
  Dissertation Title : The Interplay between Privacy and Fairness in Learning and Decision-making Problems
  Next position : Research Scientist, Amazon.
- **Jacob Kennedy Christopher, MS** (Syracuse University) *Spring 2023*
  Research : Differentiable Optimiztion.
  Next position : PhD student at *University of Virginia*.
- **Yehya Farhat, MS** (Syracuse University) *Fall 2022*
  Dissertation Title : Surrogate ML models for optimization.
  Next position : PhD student at *Rice University*.

Other Advised Students and Visitors

- **Cuong Tran** (Postdoc) *Sep 2023 – Mar 2024*
  Research : Data Minimization, Fairness in Large Language Models.
- **Razan Tajeddine**, PhD at U of Helsinki (Visiting postdoc) *Sep 2023 – Mar 2024*
  Research : Differential Privacy and Fairness.
- **St John Grimbly**, MS at UniSA (Visiting Student Researcher) *Spring 2023*
  Next position : PhD student at *University of South Africa*.
- **Jayanta Mandi**, PhD at KU Leuven (Visiting Student Researcher) *Jun 2022 – Sep 2022*
  Research : Decision Focused Learning.
- **Rakshit Naidu**, MS at CMU (Intern) *Summer 2022*
  Research : Privacy and Fairness in ML. Next position : PhD student at *Georgia Tech*

BS and High-School Students

Shujun Xia (BS, City University of Hong Kong, Summer 2024), **Zarreen Reza** (BS, OpenMined, Spring 2024), **Eric Nguyen** (BS, University of Virginia, Fall 2023), **Catherine Smolka** (HS, Deep Run High School, VA, 2023-2024), **Pranav Putta** (BS, GaTech, Summer 2023) [NSF REU], **Winston Tsui** (BS, SU Summer 2023), **Zhongquan Cheng** (BS SU, Summer 2023), **Adya Parida** (BS SU, Fall 2022) [NSF REU], **Deniz Gursoy** (HS, Fayetteville High School, Summer 2022), **Saswat Das** (BS, ITS, Summer 2022), **Utsav Pathak** (BS, Alliance University, Bengaluru, Summer 2022), **Daiwei Shen** (BS, Northwestern, Summer 2022), **Sunisth Kumar** (BS, Bennett University, Summer 2022), **Kyle Beiter** (BS, SU, Summer 2021) [NSF REU], **Shantanu Jhaveri** (BS, USC, Summer 2021) [NSF REU], **Dayong Gu** (BS, SU, Summer 2021), **Guoliang Chen** (BS, SU, Summer 2021), **Pradyumn Yadav** (BS, SU, Summer 2021), **Anudit Nagar** (BS, SU, Summer 2020), **Zhiyan Yao** (BS, SU, Summer 2020), **Zifei Lu** (BS, SU, Summer 2020), **Thomas Montfort** (BS, SU, Summer 2020), **Cong Liu** (BS, SU, Summer 2020), **Pratik Paranjape**, (BS, SU, Summer 2020), **Pavan Kumar Vaddineni** (BS, SU, Spring 2020), **William Kluegel**, (BS, NMSU, 2016 – 2018), **Lyndon Shi** (BS, UMich, 2018), **Jiayu Chen** (BS, UMich, 2018), **Eric Frechette** (BS, NMSU, 2016).

PhD Dissertation Committee

- **Chen Gong**, (University of Virginia) 2025
- **Galen Harrison**, (University of Virginia) 2025
- **Felipe Toledo**, (University of Virginia) 2025
- **Luca Giuliani**, (University of Bologna) 2024
- **Eleonora Misino**, (University of Bologna) 2024
- **Guangtao Zheng**, (University of Virginia) 2024
- **Dung Nguyen**, (University of Virginia) 2023
- **Elena Long**, (University of Virginia) 2023
- **Khang Tran**, (New Jersey Institute of Technology) 2023
- **Keyu Zhu**, (Georgia Institute of Technology) 2023
- **Adrià Fenoy Barcel**, (University of Verona) 2023
- **Jeroen Fransman**, (Delft University of Technology) 2022
- **Pegah Hozhabrierdi**, (Syracuse University) 2022
- **Carlos Pinzon**, (École Polytechnique) 2022
- **Baocheng Geng**, (Syracuse University) 2021
- **Pranay Sharma**, (Syracuse University) 2021

Tutorials, Selected Invited Talks and Media interviews

- **Workshop talk** : On the Safety of Foundations Models for Autonomous BioLabs. Feb 2025
  DOE Workshop on Envisioning Frontiers in AI and Computing for Biological Research
- **Keynote talk** : Privacy and Fairness issues in Large Language Models. Nov 2024
  S-HPC Workshop, at Supercomputing 24
- **Invited talk** : Unfairness in Constrained Machine Learning. Nov 2024
  Ohio State University, Department of Computer Science
- **Invited talk** : Constraining diffusion models for scientific applications. Oct 2024
  UVA LLM Workshop
- **Invited talk** : Privacy and Fairness in Resource Allocations. Oct 2024
  2024 Federal Committee on Statistical Methodology (FCSM) Research and Policy Conference
- **Invited talk** : Constrained Diffusion for Science and Engineering. Oct 2024
  Oklahoma State University, School of Industrial Engineering and Management
- **Invited talk** : Constrained Diffusion for Science and Engineering. Sep 2024
  University of Virginia, Department of Systems and Information Engineering
- **Podcast invited speaker** : NSI Cyber and Tech Center : "Unleashing Innovation : Navigating Game Changing Technologies" – episode on open source large language model. Jul 2024
  National Security Institute at George Mason University's Antonin Scalia Law School
- **Invited participant and group lead** : US-UK Scientific Forum on Science in the Age of AI. Jun 2024
  National Academy of Sciences
- **Panelist** : AI and OR summer school. May 2024
  AI-SCORE
- **Invited talk** : Fairness in ML : The curious case of computational shortcuts and hardware choices. May, 2024
  BuzzRobot
- **Invited talk** : The Principle of Data Minimization in Machine Learning. Apr, 2024
  Google Research Seminars
- **Media cover** : Building fairness into AI is crucial – and hard to get right. Mar 2024
  The Conversation , CHED/QR Radio
- **Invited talk** : Responsible AI in Decision Making Processes. Feb 2024
  Amazon Research Seminars
- **Keynote talk** : Privacy and Fairness in Societal Systems. Nov 2023
  Workshop on the Tradeoffs in Ethical AI, INRIA, France
- **Invited talk** : Responsible AI : Privacy and Fairness in Decision Making and Learning Tasks. Nov 2023
  TOC FOR FAIRNESS, Simons Collaboration on the Theory of Algorithmic Fairness
- **Panelist** : Navigating the Frontiers of Artificial Intelligence. Oct 2023
  The Center for Politics, University of Virginia
- **Invited talk** : Optimization and Learning for Science and Engineering. Oct 2023
  Conference on Complex Systems 2023
- **Invited talk** : ML for Optimization and Optimization for ML. Sep 2023
  AI/ML Seminar Series, University of Virginia
- **Keynote talk** : The Unintended Societal Effects of Privacy in Decision and Learning Tasks. Aug 2023
  IJCAI-2023, International Workshop on Mining Actionable Insights from Social Networks
- **Invited talk** : End-to-end Constrained Optimization Learning. Jul 2023
  AC Summer School : Machine Learning for Constraint Programming
- **Invited talk** : Differential Privacy for Power Systems. Jun 2023
  DTU PES Summer School
- **Invited talk** : Optimization Proxies and Differentiable Optimization for Decision Making. Jun 2023
  MARS Seminar, Pacific Northwest National Laboratory (PNNL)
- **Invited talk** : Constrained-aware Machine Learning in Energy Systems. Jun 2023
  IEEE Power and Energy Society webinar series
- **Invited talk** : Responsible AI : Privacy and Fairness in Decision and Learning Tasks. Apr 2023
  UC San Diego

- **Panelist** : ChatGPT : Charms and Challenges. Apr 2023
  Syracuse University
- **Invited talk** : Responsible AI : Privacy and Fairness in Decision and Learning Tasks. Mar 2023
  University of Virginia
- **Invited talk** : Constrained-Aware Machine Learning. Feb 2023
  Washington University in St. Louis
- **Invited talk** : Differential Privacy for Power Systems. Jan 2023
  Los Alamos National Lab's 5th Grid Science Winter School and Conference
- **Panelist** : Algorithmic Fairness and its Intersections. Dec 2022
  Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS)
- **Tutorial** : End-to-end constrained optimization learning. Dec 2022
  21st International Conference of the Italian Association for Artificial Intelligence (AIxIA 2022)
- **Media cover** : How network pruning can skew deep learning models. Nov 2022
  Science Daily TechXplore AAAS EurekAlert
- **Invited talk** : Disparate Impacts in Privacy-preserving Machine Learning. Nov 2022
  Washington University in St. Louis
- **Tutorial** : Decision Focused Learning. Oct 2022
  Dagstuhl seminar on Data-Driven Combinatorial Optimisation
- **Media interview** *: Privacy and Fairness in AI.* *Jul/Sep 2022*
  Syracuse Media Report *NMSU News* *Sun News*
- **Media interview** *: Google Scholar Research Award.* *Jun 2022*
  Syracuse Media Report
- **Tutorial** *: Impacts of Data Privacy and Equity on Public Policy.* *Jun 2022*
  ACM Conference on Fairness, Accountability, and Transparency (FAccT)
- **Panelist** *: Fostering the Use of AI for Power System Transformation.* *Jun 2022*
  Climate Change AI
- **Media interview** *: NSF CAREER Award.* *Jun 2022*
  Syracuse Media Report
- **Invited talk** *: End-to-end constrained deep learning optimization.* *Mar 2022*
  Hall of Science (Kantar.com)
- **Panelist** *: AAAI-22 DC - Career Panel.* *Feb 2022*
  36th AAAI Conference on Artificial Intelligence (AAAI)
- **Invited talk** *: Privacy-preserving ML and decisions-making : uses and unintended disparate effects.* *Feb 2022*
  PriSec-ML (virtual seminars)
- **Media interview** *: AI for Climate Change.* *Dec 2021*
  RaiNews
- **Popular Media Report** *: ISSNAF Young Investigator Award.* *Nov 2021*
  New York Voice *AISE* Il Mattino StartupItalia Zox PugliaNews
- **Invited talk** *: Deep Constraint Learning : Applications and Privacy Considerations.* *Nov 2021*
  Italian Scientists & Scholars in North America Foundation
- **Plenary Keynote talk** *: Constraint-based Differential Privacy.* *Oct 2021*
  The International Conference on Principle and Practice of Constraint Programming (CP 2021) ,
- **Popular Media interview** *: Deep Learning for Engineering Applications.* *Nov 2021*
  Blum News
- **Invited talk** *: Privacy-Preserving Machine Learning : Uses and Unintended Disparate Effect.* *Sep 2021*
  ASPI Seminar (Syracuse University)
- **Invited talk** *: Differential Privacy and Machine Learning.* *May 2021*
  SUPA ECS workshop for High School Teachers
- **Invited talk** *: Deep Constraint Learning for Critical Engineering Systems.* *Nov 2020*
  Italian Scientists & Scholars in North America Foundation
- **Tutorial** *: Tutorial on Multiagent Optimization.* *Feb 2020*
  AAAI Conference on Artificial Intelligence (AAAI 2020)

- **Media cover** *: Multiagent Systems.* *Feb 2020*
  NetworkDigital360
- **Invited talk** *: Privacy-Preserving Artificial Intelligence.* *Jun 2019*
  University of Parma (CS Dept)
- **Tutorial** *: Tutorial on Multiagent Optimization for IoT Applications.* *May 2019*
  International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019)
- **Invited talk** *: Differential Privacy for AI Applications*
  University of Southern California - Information Sciences Institute. *Jan 2019*
  Michigan State University. *Feb 2019*
- **Invited talk** *: Privacy Preserving Artificial Intelligence*
  Syracuse University. *Feb 2019*
  Drexel University. *Feb 2019*
  University of Arkansas. *Feb 2019*
  Colorado State University. *Mar 2019*
  University of Connecticut. *Mar 2019*
- **Tutorial** *: Tutorial on Constrained Multi-agent Optimization.* *Feb 2018*
  AAAI Conference on Artificial Intelligence (AAAI 2018)
- **Plenary Keynote talk** *: Distributed Constraint Optimization for Smart Energy Networks.* *Nov 2017*
  Italian Conference on Artificial Intelligence (AI*IA 2017)
- **Invited talk** *: Distributed Constraint Optimization*
  Delft University (TU Delft). *Apr 2016*
  University of Udine. *Apr 2016*
  New Mexico State University. *Mar 2016*
- **Invited talk** *: Large Neighboring Search for Distributed Constrained Optimization.* *Mar 2016*
  Ben-Gurion University of the Negev

Research Grants and Gifts

Summary : Total External : $2,848,003 Total Internal : $181,000

- **LaCross Institute**, 2025 Fellowship in AI Research ($100,000 [entire amount for the PI]) 06/25-05/27
  Role : PI (with collaborator Max Biggs)
- **Cohere for AI**, Cohere For AI Research Grant (LLM credits) ($20,000) 12/24
  Role : PI
- **University of Virginia (Research Innovation Award)** ($60,000) 8/24-7/25
  Project title : *Understanding and Mitigating Privacy Leakage Risks for Large Language Model Applications*
  Role : PI (with David Evans as coPI)
- **National Science Foundation (CISE - RI)** ($600,000 - UVA portion : $350,000) 08/23-07/26
  Project title : *Collaborative Research : End-to-end Learning of Fair and Explainable Schedules for Court Systems*
  Role : Lead PI (with L. Gouldin (Syr) as coPI and W. Yeoh WashU as collaborative PI)
- **National Science Foundation (EECS - EPCN)** ($520,000 - UVA porition : $260,000) 08/23-07/26
  Project title : *Collaborative Research : Physics Informed Real-time Optimal Power Flow*
  Role : PI (with Kyri Baker (UC Boulder) as collaborative PI)
- **Amazon Research Awards AWS AI** ($55,000) 01/23
  Project title : *Toward Understanding the Unintended Disparate Impacts of Private Machine Learning Systems*
  Role : PI
- **National Science Foundation (CAREER, CISE - RI)** ($515,403) 03/22-02/27
  Project title : *CAREER : End-to-end Constrained Optimization Learning*
  Role : PI
- **Google Research Scholar Award** ($60,000) 06/22
  Project title : *On the Equity of Differentially Private Decision Processes*
  Role : PI
- **National Science Foundation (CISE - SaTC)** ($500,000 - UVA portion : $281,000) 10/21-09/25
  Project title : *Collaborative Research : SaTC : Core : Small : Privacy and Fairness in Critical Decision Making*
  Role : Lead PI (with P. Van Hentenryck (Georgia Tech) as collaborative PI)

- **National Science Foundation (CISE - RI)** ($500,000 - UVA portion : $266,000) 10/20-09/24
  Project title : *Collaborative Research : RI : Small : Deep Constrained Learning for Power Systems*
  Role : PI (with P. Van Hentenryck (Georgia Tech) as collaborative PI)
- **CUSE Program** ($21,000) 07/21-06/23
  Project title : *On the Potential Perils of Fairness Algorithms in Decision Making and Learning Tasks*
  Role : PI (with S. Soundarajan (Syr) as coPI)

Travel and Service Grants

- **Google** ($5000) (pending review) 02/25
  Project title : *Support for Scholarship awards to attend the 2025 AAAI Privacy Preserving AI workshop*
  Role : PI
- **Apple** ($3000) 02/25
  Project title : *Support for Scholarship awards to attend the 2025 AAAI Privacy Preserving AI workshop*
  Role : PI
- **OpenDP** ($500) 02/25
  Project title : *Support for Scholarship awards to attend the 2025 AAAI Privacy Preserving AI workshop*
  Role : PI
- **National Science Foundation** ($50,000) 05/24
  Project title : *Conference : Artificial Intelligence Summer School for Computer Science and Operations Research Education*
  Role : coPI (with Lavanya Marla (UIUC) as PI
- **Artificial Intelligence Journal** ($4,000) 03/24
  Project title : *Student Support AU-SCORE 2024*
  Role : PI (with Lavanya Marla)
- **Artificial Intelligence Journal** ($15,000) 01/23
  Project title : *Student Support for AAMAS 2023*
  Role : PI (with Ana L. C. Bazzan)
- **National Science Foundation** ($25,000) 05/23
  Project title : *Travel : Travel : Doctoral Mentoring Consortium at the 22nd International Conference on Autonomous Agents and Multiagent Systems*
  Role : PI
- **OpenDP** ($500) 02/24
  Project title : *Support for Scholarship awards to attend the 2024 AAAI Privacy Preserving AI workshop*
  Role : PI
- **Google** ($5,000) 02/24
  Project title : *Support for Scholarship awards to attend the 2023 AAAI Privacy Preserving AI workshop*
  Role : PI
- **Google** ($2,500) 02/23
  Project title : *Support for Scholarship awards to attend the 2023 AAAI Privacy Preserving AI workshop*
  Role : PI

Pending Grants Submissions

- **DARPA YFA**, ($1,000,000) 2/25
  Project title : Constraint-Driven Generative AI for Grounded, Physics-informed, and Reliable Outputs
  Role : PI
- **Amazon Research Awards AWS AI**, ($70,000) 09/24
  Project title : Massively Accelerating Large Language Models Inferences through Speculative Diffusion Decoding
  Role : PI
- **National Science Foundations**, ($1,200,000) 06/24
  Project title : Privacy and Fairness : From Data Collection to Downstream Decisions
  Role : PI (with Juba Ziani (Georgia Tech) as coPI)
- **National Science Foundations**, ($600,000) 2/25
  Project title : Towards Certifiable Constraint-aware Generative Models
  Role : PI
- **CISCO**, ($100,000) 10/24
  Project title : Massively Accelerating Foundations Models through Speculative Diffusion Decoding
  Role : PI

- **CISCO**, ($100,000) 10/24
  Project title : Disclosure Audits for LLM-powered Agentic Systems
  Role : co-PI (with David Evans as PI)
- **University of Virginia, RIA**, ($60,000) 01/25
  Project title : Constraining Generative AI for Safe Embodied Robotic Agents
  Role : PI (with Nicola Bezzo as coPI)
- **4VA Grants**, ($30,000) 01/25
  Project title : Towards Fair and Interpretable LLM-based Decision Systems
  Role : PI (with Ziwei Zhu as coPI)
- **4VA Grants**, ($30,000) 01/25
  Project title : Dynamic LLM Benchmarks for Multimodal Social Intelligence
  Role : PI (with Jindong Wang as coPI)
- **3-Cavalliers, UVA**, ($80,000) 01/25
  Project title : Advancing Multi-Contrast Brain MRI with High-Resolution Generative Diffusion Models
  Role : PI (with Craig Meyer and Mathews Jacob as coPIs)

Service

Conference Chair

- **International Conference on Principles and Practice of Constraint Programming (CP)** 2022
  with Roie Zivan

Workshop Chair

- **Sixth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2025
  with Juba Ziani, Wanrong Zhang, and Jeremy Seeman
- **Algorithmic Fairness through the lens of Metrics and Evaluation (AFME)**, at NeurIPS 2024
  with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- **AAAI Workshop on Learnable Optimization (LEARNOPT)**, at AAAI 2024
  with Elias B. Khalil, Pascal Van Hentenryck, Jan Drgona, Draguna Vrabie, and Priya Donti
- **Fifth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2024
  with Juba Ziani, Christine Task, and Niloofar Mireshghallah
- **Algorithmic Fairness through the lens of Time (AFT)**, at NeurIPS 2023
  with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- **Workshop on Optimization and Learning in Multi-Agent Systems**, at AAMAS 2023
  with Hau Chan, Jiaoyang Li, Filippo Bistaffa, and James Kotary
- **Fourth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2023
  with Catuscia Palamidessi, and Pascal Van Hentenryck
- **Algorithmic Fairness through the lens of Causality and Privacy (AFCP)**, at NeurIPS 2022
  with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- **Workshop on Optimization and Learning in Multi-Agent Systems**, at AAMAS 2022
  with Hau Chan and Jiaoyang Li
- **Third AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2022
  with Aleksandra Korolova and Pascal Van Hentenryck
- **AAAI Workshop on Machine Learning for Operational Research (ML4OR)**, at AAAI 2022
  with Emma Frejinger, Elias Khalil, and Pashootan Vaezipoor
- **Second AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2021
  with Pascal Van Hentenryck and Richard W. Evans
- **Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS)**, at AAMAS 2021
  with Amulya Yadev, Gauthier Picard, and Bryan Wilder
- **First AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)**, at AAAI 2020
  with Pascal Van Hentenryck and Rachel Cummings
- **Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS)**, at AAMAS 2020
  with Bryan Wilder and Long Tran-Thanh
- **Workshop on Optimization in Multi-Agent Systems (OptMAS)**, at AAMAS 2019
  with Archie Chapman and Long Tran-Thanh
- **Workshop on Optimization in Multi-Agent Systems (OptMAS)**, at FAIM18 2018
  with Archie Chapman, Long Tran-Thanh, and Roie Zivan

Conference Organizing Committee

- **Demo Track Chair** : International Joint Conference on Artificial Intelligence (IJCAI) 2023
- **Scholarship Chair** : International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2023
- **Tutorial Chair** : International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2022
- **Track Chair** : International Conference on Principles and Practice of Constraint Programming (CP) 2018 – 2019
- **Publicity Chair** : International Conference on Logic Programming (ICLP) 2019
- **Track Chair** : International Symposium on Mathematical Programming (ISMP) 2018

Award Committee

- ACP Early Career Researcher Award committee 2024
- ISSNAF Mario Gerla Young Investigator Award 2023

Service to Journals

- **Editorial Board Member** : Artificial Intelligence 2024–present
- **Associate Editor** : IISE Transactions *Special issue on Federated Learning* 2023
- **Guest Editor** : Theory and Practice of Logic Programming (TPLP) *Past and Present (and Future) of Parallel and Distributed Computation in (Constraint) Logic Programming* 2018

Senior Area Chair

- AAAI Conference on Artificial Intelligence (AAAI) 2025
- ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2023 – 2025
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2024 – 2025
- International Joint Conference on Artificial Intelligence (IJCAI) 2024 – 2025
- European Conference on Artificial Intelligence (ECAI) 2023 – 2024

Area Chair

- AAAI Conference on Artificial Intelligence (AAAI) 2020 – 2024
- International Joint Conference on Artificial Intelligence (IJCAI) 2021 – 2023
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2023
- International Conference on Principles and Practice of Constraint Programming (CP) 2018, 2019, 2022
- Neural Information Processing Systems (NeurIPS) 2024
- International Conference on Machine Learning (ICML) 2025

Workshop/Tutorial Proposal Reviewer

- International Conference on Machine Learning (ICML) 2024 – 2025
- Neural Information Processing Systems (NeurIPS) 2023, 2024
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2022

Program Committee

- ACM Computer and Communications Security (CCS) 2025
- Bridge Program on AI and OR, at AAAI 2024
- Neural Information Processing Systems (NeurIPS) 2020 – 2023
- International Conference on Machine Learning (ICML) 2021 – 2024
- International Conference on Learning Representations (ICLR) 2021 – 2025
- Privacy Enhancing Technologies Symposium (PETS) 2021 – 2023
- Electric Power System Research (PSCC) 2022
- International Conference on Logic Programming (ICLP) 2021
- International Conference on Principles and Practice of Constraint Programming (CP) 2016 – 2018, 2021
- International Joint Conference on Artificial Intelligence (IJCAI) 2016 – 2020
- European Conference on Machine Learning (ECML) 2020
- International Symposium on Combinatorial Search (SoCS) 2015 – 2020
- International Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS) 2020
- AAAI Conference on Artificial Intelligence (AAAI) 2018 – 2019
- Italian Conference on Computational Logic (CILC) 2017 – 2019

- Distributed Artificial Intelligence (DAI) 2019
- European Conference on Artificial Intelligence (ECAI) 2016 – 2018
- International Workshop on Optimization in Multi-Agent Systems (OptMAS) 2016 – 2017
- Italian Conference on Artificial Intelligence (AI*IA) 2017

Journal Reviewer

- Harvard Data Science Review 2024
- INFORMS Journal on Computing 2022, 2023
- Transactions on Machine Learning Research (TMLR) 2022
- Journal of Artificial Intelligence Research (JAIR) 2016 – 2022
- Artificial Intelligence Journal (AIJ) 2016 – 2021
- Journal of Machine Learning Research (JMLR) 2021
- IEEE Transactions on Smart Grid 2019 – 2021
- IEEE Transactions on Power Systems 2020 – 2021
- IEEE Transactions on Dependable and Secure Computing 2020
- IEEE Transactions on Information Forensics & Security 2019 – 2020
- Gates Open Research 2020
- Patterns 2020
- Autonomous Agents and Multi-Agent Systems (JAAMAS) 2014 – 2017, 2019 – 2020, 2023
- Artificial Intelligence Review (AIR) 2016 – 2017
- Fundamenta Informaticae Journal 2016 – 2017
- AI Communications 2017
- Algorithms for Molecular Biology (AMB) 2014

Doctoral Consortia Mentoring

- AAAI Conference on Artificial Intelligence (AAAI) 2022

Conference/Symposium/Workshop Reviewer

- European Control Conference (ECC) 2021
- AAAI Conference on Artificial Intelligence (AAAI) 2014 – 2017
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2014 – 2016
- International Conference on Principles and Practice of Constraint Programming (CP) 2016 – 2017
- International Conference on Principles and Practice of Multi-Agent Systems (PRIMA) 2016
- International Joint Conference on Artificial Intelligence (IJCAI) 2015
- International Conference on Logic Programming (ICLP) 2015
- International Symposium on Combinatorial Search (SoCS) 2014
- International Workshop on Distributed Constraint Reasoning (DCR) 2014
- EURO-Par Parallel Processing (EUROPAR) 2014
- Principles and Practice of Declarative Programming (PPDP) 2014

Panel Reviewer

- NSF, CISE Panel ($\times 2$) 2024
- Austrian Research Promotion Agency (FFG) 2023
- NSF, Eng Panel 2023
- NSF, NRT Panel 2022
- NSF, SaTC Panel 2022
- NSF, CISE Panel 2022
- Israel Science Foundation (IIS) (external reviewer) 2022 – 2023
- Climate Change AI (CCAI) Grant 2022 – 2023
- CUSE Grant, Syracuse University 2020 – 2021
- NSF, CISE RI (external reviewer) 2020

School/Department Service (at UVA)

- Search Committee (Teaching track) 2024
- Graduate Program Committee 2023 – 2024
- Advisor ACM SIGAI at UVA 2023 – 2024

School/Department Service (at SU)

- Curriculum Committee 2023 – 2024
- Prepare and Grade Qualifier exam (Programming/Data Structure) 2022 – 2023
- Academic Integrity panelist 2021 – 2022
- Remembrance Scholars Selection Committee 2022