# Ferdinando FIORETTO Assistant Professor

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Research Interests: Machine Learning | Responsible AI | Differential Privacy | Algorithmic Fairness

Al for Science and Engineering | Differentiable Optimization | Power Systems.

#### PROFESSIONAL EXPERIENCE

University of Virginia, Computer Science, Charlottesville, VA ASSISTANT PROFESSOR
<b>Syracuse University</b> , <i>Electrical Engineering &amp; Computer Science</i> , Syracuse, NY ASSISTANT PROFESSOR

#### **EDUCATION**

Dec. 2019 Sep. 2018	<b>Georgia Institute of Technology</b> , <i>School of Industrial and System Engineering</i> , Atlanta, GA POST-DOCTORAL RESEARCHER
Dec. 2018 Sep. 2016	<b>University of Michigan</b> , <i>Industrial and Operations Engineering</i> , Ann Arbor, MI RESEARCH FELLOW
Aug. 2016	University of Udine <sup>1</sup> , 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

> The Caspar Bowden PET award for Outstanding Research in Privacy Enhancing Technologies is presented annually to researchers whose work makes an outstanding contribution to the theory, design, implementation, or deployment of privacy enhancing technology. The 2022 award was selected among all qualifying papers (published in any venue in the years 2020–2021).

The award letter reads: "Your paper Decision Making with Differential Privacy under the Fairness Lens received the award especially for advancing the understanding of DP and fairness trade-offs in deci-

sion making, providing a theoretical framework and exploring a highly relevant practical problem."

2022 Google Research Scholar Award, Google (Privacy). Link

> Project name: "Equity of Differentially Private Decision Processes".

The Research Scholar Program provides unrestricted gifts to support research at institutions around the world, and is focused on funding world-class research conducted by early-career professors.

## 2022 NSF CAREER Award, National Science Foundation. 2 Press

> Project name : "End-to-end Constrained Optimization Learning".

The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research.

2022 Early Career Spotlight, International Joint Conference on Artificial Intelligence (IJCAI). CLink

<sup>1.</sup> Dual degree with New Mexico State University

- > Accompanying paper: "Integrating Machine Learning and Optimization to Boost Decision Making".

  The IJCAI Early Career Spotlight talks are aimed at providing an accessible introduction to the research directions of some of the most active early career researchers in Al. The talks are by invitation, based on nominations from the IJCAI program committee.
- 2022 Best Paper Award, IEEE Transaction of Power System. 🗹 Link
  - > For paper: "Differentially Private Optimal Power Flow for Distribution Grids".

    This highly selective award was assigned to eight out of all IEEE-TPS papers published in 2019–2021.
- 2021 Amazon Research Award, Amazon AWS AI (Responsible AI). Press
  - > Project name: "Toward Understanding the Unintended Disparate Impacts of Private Machine Learning Systems".

The Amazon Research Awards is a competitive global program which offers unrestricted funds and AWS Promotional Credits to support research at academic institutions and non-profit organizations in areas that align Amazon's mission to advance science.

- 2021 Early Career Researcher Award, Association for Constraint Programming. 🗹 Link
  - > The Early Career Research Award is assigned by the Association for Constraint Programming to early career researchers for their contributions to constrained optimization.

    In particular, this *inaugural* award was given "for contribution to constraint programming and, in particular, fundamental advances in distributed constraint satisfaction, constraint-based differential privacy, fairness in artificial intelligence, and their applications in energy, mobility, and census data."
- 2021 Mario Gerla Young Investigator Award, ISSNAF. 🗹 Press
  - > Established by the Gerla family in 2019 in memory of Dr. Mario Gerla, professor of Computer Science at UCLA, the Italian Scientists and Scholars in North America Foundation confers the *Young Investigator Awards* every year to outstanding, early-career, Italian researchers working in North America, in recognition of their significant and innovative contributions to computer science. The award is conferred in coordination with the Italian Embassy in US.
- 2021 Best Paper Award, IEEE Transaction of Power System. Link
  - > For paper: "Privacy-Preserving Power System Obfuscation: A Bilevel Optimization Approach".

    This highly selective award was assigned to seven out of all IEEE-TPS papers published in 2018–2020.
- 2017 **Best AI Dissertation Award**, AI\*IA. **Press** 
  - > For Thesis "Exploiting the Structure of Distributed Constraint Optimization Problems with Applications in Smart Grids."
    - The "Marco Cadoli' 'Best AI dissertation is assigned by the Italian Association for Artificial Intelligence (AI\*IA) to a Ph.D. doctor who have obtained the title in an Italian University based on the quality and impact of the thesis work.
- 2017 **Most Visionary Workshop Paper Award**, International Conference of Autonomous Agents and Multiagent Systems (AAMAS). 

  Link
  - > For paper "A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs".
- 2013 Best Student Paper Award, Computational Methods in System Biology (CMSB). 🗹 Link
  - > For paper "Constraint Programming in Community-based Gene Regulatory Network Inference".

#### OTHER AWARDS

- 2023 ICLR Notable Reviewer Award, International conference on Learning Representations (ICLR). 🗹 Link
- 2023 NMSU CS Star Award, New Mexico State University (NMSU). CLink
- 2022 **Lightning Talk (Spotlight)**, Conference on Neural Information Processing Systems (NeurIPS). **Lightness** Assigned to typically 2022 out of all paper submissions (10.411 in 2022)
  - > Highly selective process assigned to typically ~3% out of all paper submissions (10,411, in 2022)).
- 2022 **Top Reviewer Award**, Conference on Neural Information Processing Systems (NeurIPS). **Z** 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
- 2016 **Top Graduate Student Honor's Cord**, NMSU.
- 2014 Outstanding Research Assistant Award, Computer Science, NMSU. Press
- 2014 Outstanding Teaching Assistant Nomination, NMSU.
- 2013 **Ph.D. Scholarship Award (~\$50,000)**, University of Udine.

- 2013 Outstanding Teaching Assistant Award, Computer Science, NMSU. <a href="https://example.com/Press">Press</a>
- 2013 Computer Science Scholarship (\$1500), NMSU.
- 2012 Honors Graduate Recognition for Outstanding Academic Success, NMSU.
- 2008 Erasmus Scholarship ( $\sim $14,000$ ), University of Leeds.

#### **TRAVEL GRANTS**

AAAI'20 Tutorial and Workshops (2020), AAAI'18 Tutorial Grant (2018), CP'16 Travel Support (2016), IJCAI'16 Travel Support (2016), AAMAS'16 Travel Support (2016), CP'15 Travel Support (2015), AAMAS'15 Travel Support (2015), AAAI/SIGAI Doctoral Consortium Travel Support (2015), CP'14 Travel Support (2014), CMSB'13 Conference Funding (2013), RR'13 NFS Travel Support (2013), ASNMSU Conference Funding (2012,2013,2014,2015), NMSU Graduate Student Travel Grant (2012).

#### **PUBLICATIONS**

Summary: > 13 Journals articles > 60 Conference papers > 2 Book chapters > 3 Editorial articles

> 19 Workshop papers > 20+ Preprints

**Total citations:** 1961 **H-index**: 24 **☞** Google Scholar

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

#### **UNDER REVIEW**

- Cuong Tran, Zarreen Reza, Ferdinando Fioretto.
   "On the unintended fairness effects of Low Rank Approximation in Large Language Models".
   Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), 2024.
- . A Razane Tajeddine, Ajinkya Mulay, Tudor Cebere, Ferdinando Fioretto.

  "From Adversarial Robustness to Differential Privacy and Back".

  Proceedings of the Conference of Uncertainty on Artificial Intelligence (UAI), 2024.
- . **Solution** James Kotry, My H. Dinh, Ferdinando Fioretto.

  "End-to-End Optimization and Learning with Ordered Weighted Averages".

  Proceedings of the Conference of Uncertainty on Artificial Intelligence (UAI), 2024.
- . Khang Tran, Ferdinando Fioretto, Issa Khalil, My T. Thai, Linh Thi Xuan Phan, Hai Phan. "Achieving Fairness Certification with Differential Privacy".

  Proceedings of the International Conference on Machine Learning (ICML), 2024.
- . 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.
- . Sree Harsha Nelaturu, Nishaanth Kanna Ravichandran, ♣ Cuong Tran, Sara Hooker, Ferdinando Fioretto. 
  "On The Fairness Impacts of Hardware Selection in Machine Learning".

  Proceedings of the International Conference on Machine Learning (ICML), 2024. 

  C
- Prakhar Ganesh, 
   <sup>≜</sup> Cuong Tran, Reza Shokri, Ferdinando Fioretto.
   "The Data Minimization Principle in Machine Learning".
   Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FACCT), 2024.
- . 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.
- . **Solution** James Kotary, Vincenzo Di Vito, Jacob K Christopher, Pascal Van Hentenryck, Ferdinando Fioretto. "Learning Joint Models of Prediction and Optimization".

  Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2024.

Cuong Tran, Keyu Zhu, Ferdinando Fioretto, Pascal Van Hentenryck. "Fairness Increases Adversarial Vulnerability". Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2024. REFEREED CONFERENCES OR JOURNAL PAPERS 119. Ferdinando Fioretto, Keyu Zhu, Pascal Van Hentenryck, 📤 Saswat Das and Christine Task. "Finding  $\epsilon$  and  $\delta$  of Traditional Disclosure Control Systems". Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2024. 118. ▲ James Kotary, ▲ Jacob Christopher, ▲ My H Dinh, and Ferdinando Fioretto. "Analyzing and Enhancing the Backward-Pass Convergence of Unrolled Optimization". CoRR abs/2301.12047, 2024. 117. A Sree Harsha Nelaturu, Nishaanth Kanna Ravichandran, Cuong Tran, Sara Hooker, and Ferdinando Fioretto "On The Fairness Impacts of Hardware Selection in Machine Learning". CoRR abs/2312.03886, 2023. Mostafa Mohammadian. Kvri Baker. Ferdinando Fioretto. "Gradient-Enhanced Physics-Informed Neural Networks for Power Systems Operational Support". Electric Power Systems Research, pages 109551, 2023. 115. Le Cuong Tran and Ferdinando Fioretto. "Data Minimization at Inference Time". Proceedings of the Conference on Neural Information Processing Systems (NeurIPS), 2023. 114. Vladimir Dvorkin and Ferdinando Fioretto. "Price-Aware Deep Learning for Electricity Markets". Tackling Climate Change with Machine Learning, at NeurIPS 2023. 113. A 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. ▲ 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. ▲ James Kotary, ▲ Vincenzo Di Vito, Ferdinando Fioretto, Pascal Van Hentenryck. 111. "SF-PATE : Scalable, Fair, and Private Aggregation of Teacher Ensembles". Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2023. **♣** Cuong Tran, **♣** Keyu Zhu, **Ferdinando Fioretto**. "End-to-End Combinatorial Ensemble Learning". Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2023. **109**. **Lesson of Example 2** Cuong Tran, **Ferdinando Fioretto**. "On the Fairness Impacts of Private Ensembles Models", Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2023. 108. Terrence W.K. Mak, Ferdinando Fioretto, Pascal Van Hentenryck. "Load Encoding for Learning AC-OPF". Proceedings of the IEEE PES General Meeting (PES), 2023. **107**. **♣** 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. Jayanta Mandi, & James Kotary, Senne Berden, Maxime Mulamba, Victor Bucarey, Tias Guns, Ferdinando Fio-106. retto.

"Decision-Focused Learning: Foundations, State of the Art, Benchmark and Future Opportunities".

CoRR abs/2307.13565, 2023.

**105**. Khang Tran, **Ferdinando Fioretto**, Issa Khalil, My T. Thai, NhatHai Phan.

"FairDP: Certified Fairness with Differential Privacy".

CoRR abs/2305.16474, 2023.

104. Keyu Zhu, Ferdinando Fioretto, Pascal Van Hentenryck, Saswat Das, Christine Task.

"Privacy and Bias Analysis of Disclosure Avoidance Systems".

CoRR abs/2301.12204, 2023.

103. A My H. Dinh, Ferdinando Fioretto.

"Context-Aware Differential Privacy for Language Modeling".

CoRR abs/2301.12288, 2023.

102. 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. 🗹

- **101**. **♣** 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. 

Lightning Talk (Spotlight) (Typically assigned to ∼3% out of all paper submissions (10,411, in 2022)).

100. 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.

99. 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.

- 98. Ferdinando Fioretto.
- $oldsymbol{\Psi}$  "Integrating Machine Learning and Optimization to Boost Decision Making".

Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2022. **Early Career Spotlight** (Accompanying paper).

97. A 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.

96. **L** 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.

95. 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.

94. 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. ☑

93. Ferdinando Fioretto, et al..

"Reports of the Workshops Held at the 2022 AAAI Conference on Artificial Intelligence".

Al Magazine, 2022.

- 92. Luong Tran, My H. Dinh, Ferdinando Fioretto.
- The state of the second section se

AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)—at AAAI, 2022. Spotlight Paper.

91. Long Tran, Keyu Zhu, Ferdinando Fioretto, Pascal Van Hentenryck.

"Fairness Increases Adversarial Vulnerability".

CoRR abs/2211.11835, 2022.

90. Mostafa Mohammadian, Kyri Baker, Ferdinando Fioretto.

 $\hbox{``Gradient-Enhanced Physics-Informed Neural Networks for Power Systems Operational Support"}.$ 

CoRR abs/2206.10579, 2022.

89. Sawinder Kaur, Ferdinando Fioretto, Asif Salekin.

"Deadwooding: Robust Global Pruning for Deep Neural Networks".

CoRR abs/2202.05226, 2022.

88. Ferdinando Fioretto, Pascal Van Hentenryck, Keyu Zhu.

"Differential Privacy of Hierarchical Census Data: An Optimization Approach".

Artificial Intelligence Journal (AIJ), (296), pages 103475, 2021.

- 87. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour.
- Tilde of the Continuation of the Continuation

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).

86. Luong 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.

85. 🚨 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.

- 84. Luong Tran, Ferdinando Fioretto, Pascal Van Hentenryck, Zhiyan Yao.
- $\mathbf{Y}$  "Decision Making with Differential Privacy under the Fairness Lens".

Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 560–566, 2021. 2022 Caspar Bowden PET Award (Selected among all papers about Privacy Enhancing Technologies published in international conferences between 2020–2022.).

83. Lames 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.

82. 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.

81. 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.

**80**. **♣** 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. ☑

79. Ferdinando Fioretto.

"Constrained-based Differential Privacy".

*Proceedings of the* **International Conference on Principles and Practice of Constraint Programming (CP)**, 1868–8969, 2021. ☑

78. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson.

"Differentially Private Optimal Power Flow for Distribution Grids".

IEEE PowerTech. 2021.

77. Ferdinando Fioretto, et al...

"Reports of the Workshops Held at the 2021 AAAI Conference on Artificial Intelligence".

Al Magazine, 2021.

76. Luong Tran, Ferdinando Fioretto.

"Decision Making with Differential Privacy under the Fairness Lens".

Theory and Practice of Differential Privacy (TPDP) – at ICML, 2021.

75. 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. 🗹

74. Luong 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.

73. A My H. Dinh, Ferdinando Fioretto, Mostafa Mohammadian, Kyri Baker.

"Towards Understanding the Unreasonable Effectiveness of Learning AC-OPF Solutions".

CoRR abs/2111.11168, 2021.

"A Fairness Analysis on Private Aggregation of Teacher Ensembles".

CoRR abs/2109.08630, 2021.

71. Cuong Tran, My H. Dinh, Ferdinando Fioretto.

"Differentially Private Deep Learning under the Fairness Lens".

CoRR abs/2106.02674, 2021 (extended NeurIPS-21 version).

70. ▲ Anudit Nagar, ▲ Cuong Tran, Ferdinando Fioretto.

"A Privacy-Preserving and Trustable Multi-agent Learning Framework".

CoRR abs/2106.01242, 2021. (extended AAMAS-21 version).

69. A 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).

**68**. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal VanHentenryck.

"Load Embeddings for Scalable AC-OPF Learning".

CoRR abs/2101.03973, 2021.

67. 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".

Al Magazine, 41(4) 2020.

**66**. **Ferdinando Fioretto**, **≜** Cuong Tran, Pascal Van Hentenryck.

"Lagrangian Duality for Constrained Deep Learning".

INFORMS, 2020. 🗹

65. Lesia Mitridati, Ferdinando Fioretto, Pascal Van Hentenryck.

"Differential Privacy For Stackelberg Games : An Application To Gas And Electricity Markets".

INFORMS, 2020. 🖸

64. 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).

**63**. 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.

62. Vladimir Dvorkin, Ferdinando Fioretto, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson.

"Differentially Private Convex Optimization with Feasibility Guarantees".

CoRR abs/2006.12338, 2020.

**61**. **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.

**60**. 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).

**59**. **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.

58. Ferdinando Fioretto, Lesia Mitridati, Pascal Van Hentenryck.

"Differential Privacy Stackebelg Games".

Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 3480–3486, 2020. 🗹

- **57**. **Ferdinando Fioretto**, Pascal Van Hentenryck.
- "OptStream : Releasing Time Series Privately".

Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 5135–5139, 2020. Invited to the IJCAI journal track.

**56**. 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.

55. 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.

**54**. 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. ☑

- **53**. **Ferdinando Fioretto**, Pascal Van Hentenryck.
- ToptStream: Releasing Time Series Privately".

Journal of Artificial Intelligence Research (JAIR), (65) pages 423–456, 2019. Invited to IJCAI 2020 journal track.

- **52**. **Ferdinando Fioretto**, Agostino Dovier, Enrico Pontelli.
- Tibuted 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).

**51**. **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.

**50**. **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.

- **49**. **Ferdinando Fioretto**, Pascal Van Hentenryck.
- Tilder of Hierarchical Census Data: An Optimization Approach".

**Invited to Constraint journal** (selected papers – declined).

**48**. 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.

47. 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).

**46**. **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).

**45**. **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.

**44**. **Ferdinando Fioretto**, William Yeoh.

"AI Buzzwords Explained : Distributed Constraint Optimization Problems".

**Al Matters**, 3 (4), pages 8–13, 2018.

**43**. **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.

**42**. **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. ☑

**41**. **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. ☑

**40**. 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.

**39**. **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.

**38**. **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.

**37**. **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.

- 36. 📤 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).
- **35**. 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.

34. 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.

33. 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. ✓

**32**. 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.

31. 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. ☑

30. 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.

29. 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.

28. 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. ☑

27. 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. ☑

**26**. **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.

25. 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.

24. 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.

23. 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.

22. 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.

21. 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.

20. 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. ☑

19. 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. ☑

18. 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.

17. 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 16. Ferdinando Fioretto. "Exploiting the Structure of Distributed Constraint Optimization Problems". Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), pages 4233–4234, 2015. 15. 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. 🗗 14. 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. 🗗 13.  $(\alpha-\beta)$  Federico Campeotto, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. "A GPU Implementation of Larae Neiahborhood Search for Solvina Constraint Optimization Problems". Proceedings of the European Conference of Artificial Intelligence (ECAI), pages 189–194, 2014. 12. 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. 🔀 11.  $(\alpha - \beta)$  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. 10. 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. 9.  $(\alpha-\beta)^2$  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. 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. Best Student Paper Award. 7.  $(\alpha-\beta)$  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. 🗹 6. Michael R. Best, Ferdinando Fioretto, Alessandro Dal Palù, Enrico Pontelli, Tran Son, TuShun R. Powers, Elba E. "The role of secondary and tertiary structure prediction in determining the function of novel genes found in Xenopus Leavis". Neuroscience, 2011, (518.20/ZZ45). 5.  $(\alpha - \beta)$  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. 4.  $(\alpha-\beta)$  Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. "Towards a complete constraint solver on GPU".

"Community-based Gene Regulatory Network Inference via Constraint Programming". Workshop on Constraint Based Methods for Bioinformatics (WCB)-at CP, 2013.

In Workshop on Parallel Methods for Search & Optimization (ParSearchOpt)–at ECAI, 2014. 🛂

<sup>3.</sup> Ferdinando Fioretto, Enrico Pontelli.

<sup>2.</sup> Author list is order alphabetically.

2.  $(\alpha-\beta)$  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.

1. (α-β) Michael R. Best, Kabi Bhattarai, Federico Campeotto, Alessandro Dal Palù, Hung Dang, Agostino Dovier, **Ferdinando Fioretto**, Federico Fogolari, Tiep Le, Enrico Pontelli.

 $\hbox{``Introducing FIASCO: Fragment-based Interactive Assembly for protein Structure prediction with COnstraints''}.$ 

Workshop on Constraint Based Methods for Bioinformatics (WCB)–at CP, 2011. 🗹

### **TEACHING**

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

Fall 2023 | COURSE EVALUATION: 4.33(class), 4.5(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

#### PhD Students

> James Kotary (SYRACUSE UNIVERSITY, CISE)
RESEARCH: Integration of Deep Learning and Optimization.

> Vincenzo Di Vito (SYRACUSE UNIVERSITY CISE)
RESEARCH: Physics Informed Machine Learning.

> My Dinh (SYRACUSE UNIVERSITY CISE)
RESEARCH: Deep Learning, Optimization, Fairness.

> Saswat Das (UNIVERSITY OF VIRGINIA CS)
RESEARCH: Responsible AI, Differential Privacy.

> Jacob K. Christopher (UNIVERSITY OF VIRGINIA CS) RESEARCH: Responsible AI in Generative Models.

> Cuong Tran (SYRACUSE UNIVERSITY, CISE)
RESEARCH: Differential Privacy and Fairness.

DISSERTATION TITLE: The Interplay between Privacy and Fairness in Learning and Decision-making Problems

NEXT POSITION: Postdoc at University of Virginia

#### **Postdocs**

> Cuong Tran (UNIVERSITY OF VIRGINIA, CS)
RESEARCH: Data Minimization, Fairness in Large Language Models.

> Razan Tajeddine (VISITOR AT UNIVERSITY OF VIRGINIA, CS)

 ${\sf Research: Differential\ Privacy\ and\ Fairness.}$ 

Fall 2020 – current

Fall 2022 – current

Spring 2021 – current

Fall 2023 – current

Fall 2023 – current

Spring 2020 – Spring 2023

Sep 2023 – Mar 2024

Sep 2023 - Mar 2024

## MS Students (including Interns/Visitor)

> Klaus Peng (University of Virginia)	Fall 2023
Research : Causality.	
> Jacob Kennedy Christopher (SYRACUSE UNIVERSITY)	Spring 2023
RESEARCH: Differentiable Optimiztion.	
NEXT POSITION: PhD student at <i>University of Virginia</i> .	
> St John Grimbly (University of South Africa)	Spring 2023
RESEARCH: Causality and Fairness.	
NEXT POSITION: PhD student at <i>University of South Africa</i> .	
> Yehya Farhat (SU)	Fall 2022
Proposed Thesis: Surrogate ML models for optimization.	
> Rakshit Naidu (CMU)	Summer 2022
RESEARCH: Privacy and Fairness in ML.	
NEXT POSITION: PhD student at Carnegie Mellon University	
> Pratik Paranjape (Syracuse University, CISE)	Summer 2020
RESEARCH: Generating datasets for preference elicitation.	
First job after graduation : Developer at OthersideAl	
> Pavan Kumar Vaddineni (SYRACUSE UNIVERSITY, CISE),	Spring 2020
RESEARCH: Explainable and Fair Learning.	
First job after graduation : Same	
> William Kluegel (New Mexico State University, CS)	2016 - 2018
RESEARCH: Optimization and Preferences Elicitation for Smart Home Devices.	
First job after graduation : Sandia National Labs	

## BS and High-School Students

Eric Nguyen (UVA, 2023-2024) Joonhyuk Ko (UVA, 2024) Catherine Smolka (Deep Run High School, VA, 2023-2024), Pranav Putta (GaTech, Summer 2023) [REU], Winston Tsui (SU, Summer 2023), Zhongquan Cheng (SU, Summer 2023), Adya Parida (SU, Fall 2022) [REU], Deniz Gursoy (Fayetteville High School, Summer 2022), Saswat Das (ITS, Summer 2022), Utsav Pathak (Alliance University, Bengaluru, Summer 2022), Daiwei Shen (Northwestern, Summer 2022), Sunisth Kumar (Bennett University, Summer 2022), Kyle Beiter (SU, Summer 2021) [REU], Shantanu Jhaveri (USC, Summer 2021) [REU], Dayong Gu (SU, Summer 2021), Guoliang Chen (SU, Summer 2021), Pradyumn Yadav (SU, Summer 2021), Anudit Nagar (SU, Summer 2020 – Current), Zhiyan Yao (SU, Summer 2020 – Current), Zifei Lu (SU, Summer 2020), Thomas Montfort (SU, Summer 2020), Cong Liu (SU, Summer 2020), Lyndon Shi (UMich, 2018) Jiayu Chen (UMich, 2018) Eric Frechette (NMSU, 2016).

## PhD Dissertation Committee

> 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

> Invited Talk: Responsible Al in Decision Making Processes

Amazon

February 2024

>	Keynote Talk: Privacy and Fairness in Societal Systems	
	Workshop on the Tradeoffs in Ethical AI, INRIA, France	Novermber 2023
	Invited Talk: Responsible AI: Privacy and Fairness in Decision Making and Learning Tasks TOC FOR FAIRNESS, Simons Collaboration on the Theory of Algorithmic Fairness.	November 2023
>	Panelist: Navigating the Frontiers of Artificial Intelligence The Center for Politics, University of Virginia	October 2023
>	Invited Talk: Optimization and Learning for Science and Engineering  Conference on Complex Systems 2023	October 2023
>	Invited Talk: ML for Optimization and Optimization for ML  Al/ML Seminar Series, University of Virginia	September 2023
>	Keynote Talk: The Unintended Societal Effects of Privacy in Decision and Learning Tasks	
	IJCAI-2023, International Workshop on Mining Actionable Insights from Social Networks	August 2023
>	Invited Talk: End-to-end Constrained Optimization Learning  AC Summer School: Machine Learning for Constraint Programming	July 2023
>	Invited Talk: Differential Privacy for Power Systems	July 2023
•	DTU PES Summer School	June 2023
>	Invited Talk: Optimization Proxies and Differentiable Optimization for Decision Making	
	MARS Seminar, Pacific Northwest National Laboratory (PNNL)	June 2023
>	Invited Talk: Constrained-aware Machine Learning in Energy Systems	
	IEEE Power and Energy Society webinar series	June 2023
>	Invited Talk: Responsible AI: Privacy and Fairness in Decision and Learning Tasks UC San Diego	April 2023
>	Panelist: ChatGPT: Charms and Challenges	April 2025
•	Syracuse University	April 2023
>	Invited Talk: Responsible AI: Privacy and Fairness in Decision and Learning Tasks	
	University of Virginia	March 2023
>	Invited Talk: Constrained-Aware Machine Learning Washington University in St. Louis	Feb 2023
	Washington University in St. Louis  (nvited Talk): Differential Privacy for Power Systems	
>	Washington University in St. Louis  Invited Talk: Differential Privacy for Power Systems Los Alamos National Lab's 5th Grid Science Winter School and Conference	Feb 2023 Jan 2023
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>	Washington University in St. Louis  Invited Talk: Differential Privacy for Power Systems  Los Alamos National Lab's 5th Grid Science Winter School and Conference  Invited Panelist: Algorithmic Fairness and its Intersections	Jan 2023
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>	Panelist: AAAI-22 DC - Career Panel	= /
	☑ 36th AAAI Conference on Artificial Intelligence (AAAI)	Feb 2022
	Invited Talk: Privacy-preserving ML and decisions-making: uses and unintended disparate effects  PriSec-ML (virtual seminars)	Feb 2022
>	Media Interview : Al for Climate Change	5 0004
	<b>™</b> RaiNews	Dec 2021
	Popular Media Report : ISSNAF Young Investigator Award  New York Voice AISE II Mattino StartupItalia Zox PugliaNews	Nov 2021
>	Invited Talk: Deep Constraint Learning: Applications and Privacy Considerations  Italian Scientists & Scholars in North America Foundation	Nov 2021
>	Plenary Keynote Talk: Constraint-based Differential Privacy  ☐ The International Conference on Principle and Practice of Constraint Programming (CP 2021),	Oct 2021
>	Popular Media Interview : Deep Learning for Engineering Applications  ☑ Blum News	Nov 2021
>	Invited Talk: Privacy-Preserving Machine Learning: Uses and Unintended Disparate Effect ASPI Seminar (Syracuse University)	Sep 2021
>	Invited Talk: Differential Privacy and Machine Learning SUPA ECS workshop for High School Teachers	, Мау 2021
>	Invited Talk: Deep Constraint Learning for Critical Engineering Systems	
	Italian Scientists & Scholars in North America Foundation	Nov 2020
	Tutorial: Tutorial on Multiagent Optimization  ☑ AAAI Conference on Artificial Intelligence (AAAI 2020)	Feb 2020
>	Media Cover: Multiagent Systems  ☑ NetworkDigital360	Feb 2020
>	Invited Talk: Privacy-Preserving Artificial Intelligence University of Parma (CS Dept)	Jun 2019
>	Tutorial: Tutorial on Multiagent Optimization for IoT Applications	04.7.2010
	☑ International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019)	May 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 Colorado State University	Feb 2019 Mar 2019
	University of Connecticut	Mar 2019 Mar 2019
	Tutorial: Tutorial on Constrained Multi-agent Optimization	MUI 2013
/	AAAI Conference on Artificial Intelligence (AAAI 2018)	Feb 2018
	Plenary Keynote Talk: Distributed Constraint Optimization for Smart Energy Networks	1 ED 2010
′	Italian Conference on Artificial Intelligence (AI*IA 2017)	Nov 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	
	Ben-Gurion University of the Negev	Mar 2016

## RESEARCH GRANTS AND GIFTS

PI: Ferdinando Fioretto

**Summary:** Total External: \$2,487,403 (\$1,527,403 as PI) Total Internal: \$21,000 NATIONAL SCIENCE FOUNDATION (CISE - RI) \$350,000 of \$600,000 Aug. 2023-Jun. 2026 Collaborative Research : RI : Small : End-to-end Learning of Fair and Explainable Schedules for Court Systems 🗹 PI: Ferdinando Fioretto (lead), co-PI: Lauryn Gouldin NATIONAL SCIENCE FOUNDATION (EECS - EPCN) \$260,000 of \$520,000 AUG. 2023-JUN. 2026 Collaborative Research: Physics Informed Real-time Optimal Power Flow 🗹 PI: Ferdinando Fioretto AMAZON RESEARCH AWARDS AWS AI \$55,000 JAN. 2023-Toward Understanding the Unintended Disparate Impacts of Private Machine Learning Systems 🗹 PI: Ferdinando Fioretto NATIONAL SCIENCE FOUNDATION (CAREER, CISE - RI) \$515,403 MAR. 2022-FEB. 2027 CAREER: End-to-end Constrained Optimization Learning PI: Ferdinando Fioretto GOOGLE RESEARCH SCHOLAR AWARD \$60,000 JUL. 2022-On the Equity of Differentially Private Decision Processes PI: Ferdinando Fioretto NATIONAL SCIENCE FOUNDATION (CISE - SATC) \$281,000 of \$500,000 OCT. 2021-SEP. 2024 Collaborative Research : SaTC : Core : Small : Privacy and Fairness in Critical Decision Making 🗹 PI: Ferdinando Fioretto (lead) OCT. 2020-SEP. 2023 NATIONAL SCIENCE FOUNDATION (CISE - RI) \$266,000 of \$500,000 Collaborative Research: RI: Small: Deep Constrained Learning for Power Systems PI: Ferdinando Fioretto **CUSE Program** \$21,000 of \$21,000 JUN. 2021-MAY 2023 On the Potential Perils of Fairness Algorithms in Decision Making and Learning Tasks 🔀 PI: Ferdinando Fioretto, co-PI: Sucheta Soundarajan TRAVEL AND SERVICE GRANTS ARTIFICIAL INTELLIGENCE JOURNAL \$15,000 JAN. 2023-Student Support for AAMAS 2023 PI: Ana L. C. Bazzan and Ferdinando Fioretto NATIONAL SCIENCE FOUNDATION \$25,000 MAY. 2023-Travel: Travel: Doctoral Mentoring Consortium at the 22nd International Conference on Autonomous Agents and Multiagent Systems 🗹 PI: Ferdinando Fioretto GOOGLE \$5,000 FEB. 2023-Support for Scholarship awards to attend the 2023 AAAI Privacy Preserving AI workshop 🗹 PI: Ferdinando Fioretto **GOOGLE** \$2,500 FEB. 2022-Support for Scholarship awards to attend the 2023 AAAI Privacy Preserving AI workshop 🗹

## UNDER REVIEW/IN PREPARATION

AMAZON RESEARCH AWARDS AWS AI \$70,000 The Principle of Data Minimization in Machine Learning  PI: Ferdinando Fioretto	-
NATIONAL SCIENCE FOUNDATION (CISE - SATC) \$1,200,000  Collaborative Research : SaTC : Medium : Post-processing in Differential Privacy : Understanding Bias, Varia Fairness of Downstream Decisions  PI : Ferdinando Fioretto and Juba Ziani	nce, and
NATIONAL SCIENCE FOUNDATION (ENG - CIS) \$500,000 End-to-End Learning for Planning Safe, Comfortable, and Equitable Bicycle Infrastructure  PI: Xilei Zhao and Ferdinando Fioretto	-
DARPA YFA \$1,000,000  Towards Certifiable Constraint-aware Generative Models   PI: Ferdinando Fioretto	-
NATIONAL SCIENCE FOUNDATION (CISE - RI) \$600,000  RI: Small: Constraint-aware Generative AI: Adhering to Constraints and Physical Principles PI: Ferdinando Fioretto	-
UVA RIA (INTRAMURAL) \$60,000  Understanding and Mitigating Privacy Leakage Risks for Large Language Model Applications   ✓ PI: Ferdinando Fioretto and David Evans	_
DOE EARLY CAREER RESEARCH PROGRAM \$\( \) \$not yet determined \( \) (pre-proposal stage) Deep Learning for Optimization in Multi-scale Systems \( \mathbb{C} \) PI: Ferdinando Fioretto	_
CONFERENCE CHAIR  > International Conference on Principles and Practice of Constraint Programming (CP)  with Roie Zivan	2022
<ul> <li>WORKSHOP CHAIR</li> <li>AAAI Workshop on Learnable Optimization (LEARNOPT), at AAAI with Elias B. Khalil, Pascal Van Hentenryck, Jan Drgona, Draguna Vrabie, and Priya Donti</li> <li>Fifth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI</li> </ul>	2024
with Juba Ziani, Christine Task, and Niloofar Mireshghallah  Algorithmic Fairness through the lens of Time (AFT), at NeurIPS	2024
<ul> <li>with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi</li> <li>Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS with Hau Chan, Jiaoyang Li, Filippo Bistaffa, and James Kotary</li> </ul>	2023
<ul> <li>Fourth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI with Catuscia Palamidessi, and Pascal Van Hentenryck</li> <li>Algorithmic Fairness through the lens of Causality and Privacy (AFCP), at NeurIPS</li> </ul>	2023 2022
<ul> <li>with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi</li> <li>Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS with Hau Chan and Jiaoyang Li</li> </ul>	2022
<ul> <li>Third AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI with Aleksandra Korolova and Pascal Van Hentenryck</li> </ul>	2022

> AAAI Workshop on Machine Learning for Operational Research (ML4OR), at AAAI	
· · · · · · · · · · · · · · · · · · ·	2022
<ul> <li>with Emma Frejinger, Elias Khalil, and Pashootan Vaezipoor</li> <li>Second AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI</li> </ul>	2021
with Pascal Van Hentenryck and Richard W. Evans	2021
> Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS), at AAMAS with Amulya Yadev, Gauthier Picard, and Bryan Wilder	2021
> First AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI with Pascal Van Hentenryck and Rachel Cummings	2020
> Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS), at AAMAS with Bryan Wilder and Long Tran-Thanh	2020
> Workshop on Optimization in Multi-Agent Systems (OptMAS), at AAMAS with Archie Chapman and Long Tran-Thanh	2019
> Workshop on Optimization in Multi-Agent Systems (OptMAS), at FAIM18 with Archie Chapman, Long Tran-Thanh, and Roie Zivan	2018
Conference Organizing Committee	
> Demo Track Chair: International Joint Conference on Artificial Intelligence (IJCAI)	2023
Scholarship Chair: International Conference on Autonomous Agents and Multiagent Systems (AA	
> Tutorial Chair: International Conference on Autonomous Agents and Multiagent Systems (AAMAS	
> Track Chair: International Conference on Principles and Practice of Constraint Programming (CP	
> Publicity Chair: International Conference on Logic Programming (ICLP)	2019
> Track Chair: International Symposium on Mathematical Programming (ISMP)	2018
Service to Journals	
> 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 Po	arallel and Distributed
Computation in (Constraint) Logic Programming	2018
Area Chair	
International Joint Conference on Artificial Intelligence (IJCAI)	2024
ACM Conference on Fairness, Accountability, and Transparency (FAccT)	<mark>2023</mark> , 2024
> European Conference on Artificial Intelligence (ECAI)	2023
Senior Program Committee	
> AAAI Conference on Artificial Intelligence (AAAI)	2020 – <mark>2024</mark>
	2020 - <mark>2024</mark> 2021 - <mark>2023</mark>
> AAAI Conference on Artificial Intelligence (AAAI)	
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> </ul>	2021 – <mark>2023</mark>
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> </ul>	2021 - <mark>2023</mark> 2023
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> </ul>	2021 - <mark>2023</mark> 2023
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> </ul>	2021 – <mark>2023</mark> 2023 2018, 2019, 2022
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> <li>Privacy Enhancing Technologies Symposium (PETS)</li> <li>Electric Power System Research (PSCC)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024 2021 - 2023
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> <li>Privacy Enhancing Technologies Symposium (PETS)</li> <li>Electric Power System Research (PSCC)</li> <li>International Conference on Logic Programming (ICLP)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024 2021 - 2023 2022
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> <li>Privacy Enhancing Technologies Symposium (PETS)</li> <li>Electric Power System Research (PSCC)</li> <li>International Conference on Logic Programming (ICLP)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024 2021 - 2023 2022 2021
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> <li>Privacy Enhancing Technologies Symposium (PETS)</li> <li>Electric Power System Research (PSCC)</li> <li>International Conference on Logic Programming (ICLP)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024 2021 - 2023 2022 2021 2016 - 2018, 2021
<ul> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> <li>International Joint Conference on Artificial Intelligence (IJCAI)</li> <li>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> <li>PROGRAM COMMITTEE</li> <li>Neural Information Processing Systems (NeurIPS)</li> <li>International Conference on Machine Learning (ICML)</li> <li>International Conference on Learning Representations (ICLR)</li> <li>Privacy Enhancing Technologies Symposium (PETS)</li> <li>Electric Power System Research (PSCC)</li> <li>International Conference on Logic Programming (ICLP)</li> <li>International Conference on Principles and Practice of Constraint Programming (CP)</li> </ul>	2021 - 2023 2023 2018, 2019, 2022 2020 - 2023 2021 - 2024 2021 - 2024 2021 - 2023 2022 2021 2016 - 2018, 2021 2016 - 2020

<ul> <li>&gt; AAAI Conference on Artificial Intelligence (AAAI)</li> <li>&gt; Italian Conference on Computational Logic (CILC)</li> <li>&gt; Distributed Artificial Intelligence (DAI)</li> <li>&gt; European Conference on Artificial Intelligence (ECAI)</li> <li>&gt; International Workshop on Optimization in Multi-Agent Systems (OptMAS)</li> <li>&gt; Italian Conference on Artificial Intelligence (AI*IA)</li> </ul>	2018 - 2019 2017 - 2019 2019 2016 - 2018 2016 - 2017 2017
<ul> <li>JOURNAL REVIEWER</li> <li>Harvard Data Science Review</li> <li>INFORMS Journal on Computing</li> <li>Transactions on Machine Learning Research (TMLR)</li> <li>Journal of Artificial Intelligence Research (JAIR)</li> <li>Artificial Intelligence Journal (AIJ)</li> <li>Journal of Machine Learning Research (JMLR)</li> <li>IEEE Transactions on Smart Grid</li> <li>IEEE Transactions on Power Systems</li> <li>IEEE Transactions on Dependable and Secure Computing</li> <li>IEEE Transactions on Information Forensics &amp; Security</li> <li>Gates Open Research</li> <li>Patterns</li> <li>Autonomous Agents and Multi-Agent Systems (JAAMAS)</li> <li>Artificial Intelligence Review (AIR)</li> <li>Fundamenta Informaticae Journal</li> <li>Al Communications</li> </ul>	2024 2022, 2023 2022 2016 - 2022 2016 - 2021 2021 2019 - 2021 2020 - 2021 2020 2019 - 2020 2020 2020 2020 2014 - 2017, 2019 - 2020, 2023 2016 - 2017 2016 - 2017
<ul> <li>Algorithms for Molecular Biology (AMB)</li> <li>Doctoral Consortia Mentoring</li> <li>AAAI Conference on Artificial Intelligence (AAAI)</li> </ul>	2014
CONFERENCE/SYMPOSIUM/WORKSHOP REVIEWER  > European Control Conference (ECC)  > AAAI Conference on Artificial Intelligence (AAAI)  > International Conference on Autonomous Agents and Multiagent Systems (AAMAS)  > International Conference on Principles and Practice of Constraint Programming (CP)  > International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)  > International Joint Conference on Artificial Intelligence (IJCAI)  > International Conference on Logic Programming (ICLP)  > International Symposium on Combinatorial Search (SoCS)  > International Workshop on Distributed Constraint Reasoning (DCR)  > EURO-Par Parallel Processing (EUROPAR)  > Principles and Practice of Declarative Programming (PPDP)	2021 2014 - 2017 2014 - 2016 2016 - 2017 2016 2015 2015 2014 2014 2014 2014
PANEL REVIEWER  Austrian Research Promotion Agency (FFG)  NSF, Eng Panel  NSF, NRT Panel  NSF, CISE SaTC Panel  NSF, CISE RI Panel  Israel Science Foundation (IIS) (external reviewer)  Climate Change AI (CCAI) Grant  CUSE Grant, Syracuse University  NSF, CISE RI (external reviewer)	2023 2023 2022 2022 2022 2022 – 2023 2022 – 2023 2020 – 2021 2020

## SCHOOL/DEPARTMENT SERVICE (AT UVA)

>	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