

# Ferdinando FIORETTO

## Assistant Professor

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

## Education and Training

Dec. 2019	Georgia Institute of Technology, <i>School of Industrial and System Engineering</i> , Atlanta, GA
Sep. 2018	POST-DOCTORAL RESEARCHER
Dec. 2018	University of Michigan, <i>Industrial and Operations Engineering</i> , Ann Arbor, MI
Sep. 2016	RESEARCH FELLOW
Aug. 2016	University of Udine, <i>Computer Science</i> , Udine, IT PH.D. IN COMPUTER SCIENCE (WITH MS IN 2012)
Nov. 2009	University of Parma, <i>Computer Science &amp; Mathematics</i> , Parma, IT BS. IN COMPUTER SCIENCE

## Research and Professional Experience

Current	University of Virginia, <i>Computer Science</i> , Charlottesville, VA
Jun. 2023	ASSISTANT PROFESSOR
Jun. 2023	Syracuse University, <i>Electrical Engineering &amp; Computer Science</i> , Syracuse, NY
Jan. 2020	ASSISTANT PROFESSOR

## Selected Honors and Awards

2025	Academic Grant Program Award, NVIDIA. <a href="#">Link</a>
2025	DARPA Disruptive Idea Award, DARPA. <a href="#">Link</a>
2025	Best Paper Award, AAAI Colorai workshop. <a href="#">Link</a>
2024	Fellowship in AI Research (for research on Privacy and Fairness), LaCross Institute. <a href="#">Link</a>
2022	Caspar Bowden PET Award, Privacy Enhancing Technologies (PETs). <a href="#">Link</a>
2022	NSF CAREER Award, National Science Foundation. <a href="#">Press</a>
2022	Google Research Scholar Award, Google. <a href="#">Link</a>
2022	Amazon Research Award, Amazon – AWS AI. <a href="#">Link</a>
2022	Best Paper Award, IEEE Transaction of Power System. <a href="#">Link</a>
2022	Early Career Spotlight, International Joint Conference on Artificial Intelligence (IJCAI). <a href="#">Link</a>
2021	Early Career Researcher Award, Association for Constraint Programming. <a href="#">Link</a>
2021	Mario Gerla Young Investigator Award for Research in Computer Science, ISSNAF. <a href="#">Press</a>
2021	Best Paper Award, IEEE Transaction of Power System. <a href="#">Link</a>
2018	Best AI Dissertation Award, AI*IA. <a href="#">Press</a>

## Selected Publications

**Summary :** > 79 Conference papers<sup>†</sup> > 14 Journals articles > 32 Workshop papers<sup>†</sup> > 3 Editorial articles  
> 4 Book chapters > 1 Book > 19 Under-review

**Total citations :** 3067 **H-index :** 27 [Google Scholar](#)

FULL PUBLICATION LIST AVAILABLE [here](#)

1. Ferdinando Fioretto and Pascal Van Hentenryck. **Differential Privacy in Artificial Intelligence : From Theory to Practice**. Now Publisher, 2025.
2. Vladimir Dvorkin, Ferdinando Fioretto, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour. **Privacy-Preserving Convex Optimization : When Differential Privacy Meets Stochastic Programming**. IEEE Conference on Decision and Control (CDC), 2025.
3. Saswat Das, Jameson Sandler, Ferdinando Fioretto. **Disclosure Audits for LLM Agents**. NeurIPS (under review), 2025.
4. Prakhar Ganesh, Cuong Tran, Reza Shokri, Ferdinando Fioretto. **The Data Minimization Principle in Machine Learning**. ACM Conference on Fairness, Accountability, and Transparency (FACCT), 2025.

5. Jacob K. Christopher, Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, Ferdinando Fioretto. Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion. Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL), 2025. **[Oral]**.
6. Ferdinando Fioretto, Diptangshu Sen, Juba Ziani. Differentially Private Data Release on Graphs : Inefficiencies and Unfairness. International Conference on Artificial Intelligence and Statistics (AISTATS), 2025.
7. Joonhyuk Ko, Juba Ziani, Saswat Das, Matt Williams, Ferdinando Fioretto. Fairness Issues and Mitigations in (Differentially Private) Socio-demographic Data Processes. AAAI Conference on Artificial Intelligence (AAAI), 2025. **[Oral]**.
8. Sree Nelaturu, N. Ravichandran, Cuong Tran, Sara Hooker, and Ferdinando Fioretto. On The Fairness Impacts of Hardware Selection in Machine Learning. International Conference on Machine Learning (ICML), 2024.
9. Saswat Das, Marco Romanelli, Ferdinando Fioretto. Disparate Impact on Group Accuracy of Linearization for Private Inference. International Conference on Machine Learning (ICML), 2024.
10. Cuong Tran, Keyu Zhu, Pascal Van Hentenryck, Ferdinando Fioretto. Fairness Increases Adversarial Vulnerability. International Joint Conference on Artificial Intelligence (IJCAI), 2024.
11. My H. Dinh, James Kotary, Ferdinando Fioretto. Learning Fair Ranking Policies via Differentiable Optimization of Ordered Weighted Averages. ACM Conference on Fairness, Accountability, and Transparency (FACCT), 2024.
12. Ferdinando Fioretto, Keyu Zhu, Pascal Van Hentenryck, Saswat Das, Christine Task. Finding  $\epsilon$  and  $\delta$  of Traditional Disclosure Control Systems. AAAI Conference on Artificial Intelligence (AAAI), 2024.
13. Cuong Tran and Ferdinando Fioretto. Data Minimization at Inference Time. Conference on Neural Information Processing Systems (NeurIPS), 2023.
14. Cuong Tran, Ferdinando Fioretto. On the Fairness Impacts of Private Ensembles Models. International Joint Conference on Artificial Intelligence (IJCAI), 2023.
15. Cuong Tran, Ferdinando Fioretto, Jung-Eun Kim, Rakshit Naidu. Pruning has a disparate impact on model accuracy. Conference on Neural Information Processing Systems (NeurIPS), 2022. **[Spotlight]**.
16. Keyu Zhu, Ferdinando Fioretto, Pascal Van Hentenryck. Post-processing of Differentially Private Data : A Fairness Perspective. International Joint Conference on Artificial Intelligence (IJCAI), 2022.
17. Ferdinando Fioretto, Cuong Tran, Keyu Zhu, Pascal Van Hentenryck. Differential Privacy and Fairness in Decisions and Learning Tasks : A Survey. International Joint Conference on Artificial Intelligence (IJCAI), 2022.
18. Cuong Tran, My H. Dinh, Ferdinando Fioretto. Differentially Private Deep Learning under the Fairness Lens. Conference on Neural Information Processing Systems (NeurIPS), 2021.
19. Cuong Tran, Ferdinando Fioretto, Pascal Van Hentenryck, Zhiyan Yao. Decision Making with Differential Privacy under the Fairness Lens. International Joint Conference on Artificial Intelligence (IJCAI), 560–566, 2021. **[2022 Caspar Bowden PET Award]**.
20. Keyu Zhu, Pascal Van Hentenryck, Ferdinando Fioretto. Bias and Variance of Post-processing in Differential Privacy. AAAI Conference on Artificial Intelligence (AAAI), 11177–11184, 2021.

## Selected Synergistic Activities

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- **Editorial Board Member :**
  - Artificial Intelligence Journal 2024 – current
  - Journal of Artificial Intelligence Research 2024 – current
- **Conference co-chair and Organizing Committee :**
  - Tutorial Chair :** The ACM International Conference on AI in Finance (ICAIF) 2025
  - Tutorial Chair :** International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2022
  - Conference Chair :** International Conference on Principles and Practice of Constraint Programming (CP) 2022
- **Workshop co-organizer :**
  - Workshop on Privacy Preserving Artificial Intelligence, (at AAAI) 2020 – 2026
  - Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS 2018 – 2022
  - Algorithmic Fairness through the Lens of Causality and Privacy, (at NeurIPS) 2022 – 2025
- **(Senior) Area Chair :**
  - AAAI Conference on Artificial Intelligence (AAAI) 2020 – 2026
  - International Joint Conference on Artificial Intelligence (IJCAI) 2021 – 2025
  - International Conference on Machine Learning (ICML) 2025
  - ACM Conference on Fairness, Accountability, and Transparency (FACCT) 2023 – 2025
  - Conference on Neural Information Processing Systems (NeurIPS) 2023 – 2025
  - International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2024