Sasha Voitovych

✉ voitovyc[at]mit.edu | 🌐 sashavoitovych.github.io | 💼 Linkedin

EDUCATION

Massachusetts Institute of Technology — Cambridge, MA, USA
PhD, Institute for Data, Systems, and Society (IDSS) — *2024 – 2030 (expected)*

University of Toronto — Toronto, ON, Canada
Bachelor's of Science, Computer Science and Mathematics, GPA: 3.98/4.0 — *2019 – 2024*
- Selected coursework: Real Analysis, Graduate Probability, Neural Networks and Deep Learning, Computability and Computational Complexity, Algorithm Design and Analysis.

PUBLICATIONS

The author lists are alphabetical.

[All+24]   Y. Allouah, S. Farhadkhani, R. Guerraoui, N. Gupta, R. Pinot, G. Rizk, and **S. Voitovych**. "Byzantine-Robust Federated Learning: Impact of Client Subsampling and Local Updates". In: *Proceedings of the 41st International Conference on Machine Learning (ICML 2024)*. URL.

[Gue+23]   R. Guerraoui, A.-M. Kermarrec, A. Kucherenko, R. Pinot, and **S. Voitovych**. "On the Inherent Anonymity of Gossiping". In: *37th International Symposium on Distributed Computing (DISC 2023)*. URL.

[ARV22]   D. Alistarh, J. Rybicki, and **S. Voitovych**. "Near-Optimal Leader Election in Population Protocols on Graphs". In: *Proceedings of the 2022 ACM Symposium on Principles of Distributed Computing (PODC 2022)*. URL.

EXPERIENCE

Undergraduate Research Assistant — May 2023 – Present
University of Toronto, advisor: Prof. Daniel Roy — *Toronto, ON, Canada*
- Project: On the Relationship Between Learning and Memorization.
- Project: Online Learning of Stochastic Block Models.

Research Intern — May – December 2022
École Polytechnique Fédérale de Lausanne (EPFL), advisor: Prof. Rachid Guerraoui — *Lausanne, Switzerland*
- Project: Robust Federated Learning.
- Project: Differential Privacy of Information Dissemination in Networks.

Research Intern — June – August 2021
Institute of Science and Technology Austria (ISTA), advisor: Prof. Dan Alistarh — *Klosterneuburg, Austria*
- Project: Leader Election in Population Protocols on Graphs.

AWARDS

NSERC Undergraduate Student Research Award — 2024
Project: On the Relationship Between Learning and Memorization, supervised by Prof. Daniel Roy.

NSERC Undergraduate Student Research Award — 2023
Project: Online Learning of Stochastic Block Models, supervised by Prof. Daniel Roy.

EPFL Scholarship of Excellence — 2022
Project: Differential Privacy of Information Dissemination in Networks, supervised by Prof. Rachid Guerraoui.

International Mathematical Olympiad (Silver Medal) — 2019
Represented Ukraine. 🌻

Talks

University of Toronto Undergraduate Research Symposium — October 2023
Title: "Online Learning with Stochastic Block Models" — Toronto, Canada

ACM Symposium on Principles of Distributed Computing (PODC) — June 2022
Title: "Near-Optimal Leader Election in Population Protocols on Graphs" — Salerno, Italy

Teaching

Teaching Assistant — January 2023 – April 2024
University of Toronto — *Toronto, ON, Canada*

- CSCC63: Computability and Computational Complexity (Spring 2024).
- MATB42: Techniques of the Calculus of Several Variables II (Spring 2023).