Ria Stevens

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Education

Rice University — **Houston, TX**
Ph.D. in Computer Science — *August 2022 - Present*

- Advisors: Dr. Maryam Aliakbarpour; Dr. Anastasios (Tasos) Kyrillidis
- Andrew Ladd Memorial Fellowship for Excellence in Computer Science; Ken Kennedy Institute Recruiting Fellowship

McGill University — **Montréal, QC**
Bachelor of Arts in Computer Science and Statistics — *September 2019 - May 2022*

- Advisors: Dr. Elliot Paquette; Dr. Courtney Paquette
- Dean's Honour List; Principal's Student-Athlete Honour Roll; U-Sports Academic All-Canadian

Research Experience

Rice University, Department of Computer Science — **Houston, TX**
Graduate Student Researcher; Supervised by Dr. Maryam Aliakbarpour and Dr. Tasos Kyrillidis — *Ongoing*

- Privacy-preserving algorithms for statistical estimation.
- Augmented learning for property testing of distributions.
- Exact and parallelizable algorithms for low-rank combinatorial optimization problems.

Simons Institute for the Theory of Computing — **Berkeley, CA**
Visiting Graduate Student — *Summer 2024, Winter 2026*

- Program on Federated and Collaborative Learning: privacy, trust, agency and heterogeneity in machine learning.
- Program on Sublinear Algorithms: streaming, property testing, differential privacy, distributed algorithms.

Institut Des Sciences Mathématiques / McGill University, Department of Mathematics — **Montréal, QC**
Research Intern; Supervised by Dr. Elliot Paquette and Dr. Courtney Paquette — *Summer 2021*

- Random matrix theory-based analysis of the neural tangent kernel and Hessians of neural networks.

Publications

Authors are listed alphabetically by last name, as is the standard in theoretical computer science. Exceptions use * to indicate equal or first authorship.

Conference Papers

Nearly-Linear Time Private Hypothesis Selection with the Optimal Approximation Factor
Maryam Aliakbarpour, Zhan Shi, **Ria Stevens**, Vincent X. Wang.
NeurIPS 2025. arXiv:2506.01162.

High-Probability Bounds for Heterogenoeus Local Differential Privacy
Maryam Aliakbarpour, Alireza Fallah, Swaha Roy, **Ria Stevens**
To Appear at AISTATS 2026. arXiv:2510.11895.

Under Review

Optimal Prediction-Augmented Algorithms for Testing Independence of Distributions
Maryam Aliakbarpour, Alireza Azizi, **Ria Stevens**
Under Review at COLT 2026.

Exploiting Low-Rank Structure in Max-3-Cut
Ria Stevens*, Fangshuo Liao, Barbara Su, Jianqiang Li, Anastasios Kyrillidis
Under Review at IWOCA 2026.

Teaching Experience

Instructor of Record, CS-RESP Discrete Math, *Rice University* — **Summer 2025**
Instructional Assistant, Graduate Seminar in Computer Science, *Rice University* — **Fall 2024 - Present**
Teaching Assistant, Optimization, *Rice University* — **Winter 2024**
Teaching Assistant, Reinforcement Learning, *Rice University* — **Fall 2023**
Teaching Assistant, Introduction to Computer Science, *McGill University* — **Winter 2022**
Teaching Assistant, Programming Languages and Paradigms, *McGill University* — **Winter 2021, Fall 2021**

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Industry Experience

Target **Minneapolis, MN**
Software Engineering Intern *Summer 2021*

- Engineer on the Network Threat Protection team; examined and rebuilt a monolithic application as microservices.

Service

- Reviewer at: AAAI 2026, AISTATS 2026
- Women in Theory Workshop, Simons Institute *(Attendee, 2025)*
- Differential Privacy Reading Group, Simons Institute *(co-led with A. Gentle, 2024)*
- NextProf Pathfinder, University of Michigan *(Attendee, 2023)*
- Woman and Mathematics Summer Program, Institute for Advanced Studies *(Attendee, 2022)*