TEGAN WILSON

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Khoury Distinguished Postdoctoral Fellow at Northeastern University
Simons Institute for Theory of Computing Research Fellow

EDUCATION

- **PhD in Computer Science**, Cornell University — Earned Aug 2024
  Advisor: Robert Kleinberg
- **BA in Mathematics and Computer Science**, Carleton College — Sept 2014 - June 2018
  Advisors: Layla Oesper and Mark Krusemeyer
- **Undergraduate Study Abroad**
  Budapest Semesters in Mathematics — Fall 2016
  Hokkaido International Foundation Language and Homestay Program — Summer 2016

EMPLOYMENT

- Research Fellow at the Simons Institute for Theory of Computing; Algorithmic Foundations for Emerging Computing Technologies Program — Sept 2025 - Dec 2025
- Khoury Distinguished Postdoctoral Fellow at Northeastern University — Sept 2024 - Present
- Sandia National Laboratory Graduate Research Intern — May 2019 - Aug 2019
- NREIP Intern at the Naval Research Laboratory — June 2017 - Aug 2017
- Math Assistant Systems Administrator, Carleton College — Dec 2015 - June 2018

PUBLICATIONS

- Shaleen Baral, Robert Kleinberg, Sylvan Martin, Henry Rogers, **Tegan Wilson**, Ruogu Zhang. *Universal Connection Schedules for Reconfigurable Networking. To appear at* ACM-SIAM Symposium on Discrete Algorithms (SODA) 2026.
- Nitika Saran, Daniel Amir, **Tegan Wilson**, Robert Kleinberg, Vishal Shrivastav, Hakim Weatherspoon. *Semi-Oblivious Reconfigurable Datacenter Networks.* ACM Workshop on Hot Topics in Networks (HotNets) 2024.
- Daniel Amir, Nitika Saran, **Tegan Wilson**, Robert Kleinberg, Vishal Shrivastav, Hakim Weatherspoon. *Shale: A Practical, Scalable Oblivious Reconfigurable Network.* ACM Special Interest Group on Data Communication (SIGCOMM) 2024.
- **Tegan Wilson**, Daniel Amir, Nitika Saran, Robert Kleinberg, Vishal Shrivastav, Hakim Weatherspoon. *Breaking the VLB Barrier for Oblivious Reconfigurable Networks.* ACM Symposium on Theory of Computing (STOC) 2024. (arXiv preprint)
- Daniel Amir, **Tegan Wilson**, Vishal Shrivastav, Robert Kleinberg, Hakim Weatherspoon. *Scalabilitiy and Congestion Control in Oblivious Reconfigurable Networks.* ACM Special Interest Group on Data Communication (SIGCOMM) 2023 Accepted Poster.
- **Tegan Wilson**, Daniel Amir, Vishal Shrivastav, Hakim Weatherspoon, Robert Kleinberg. *Extending Optimal Oblivious Reconfigurable Networks to all N.* Algorithmic Principles of Computer Systems (APOCS) 2023.
- Daniel Amir, **Tegan Wilson**, Vishal Shrivastav, Hakim Weatherspoon, Robert Kleinberg, Rachit Agarwal. *Optimal Oblivious Reconfigurable Networks.* ACM Symposium on Theory of Computing (STOC) 2022. (full version) (video)
- Jeremy D. Wendt, Richard V. Field, Jr., Cynthia A. Phillips, Arvind Prasadan, **Tegan Wilson**, Sucheta Soundarajan Sanjukta Bhowmick. *Partitioning Communication Streams into Graph Snapshots.* IEEE Transactions on Network Science and Engineering, March-April 2023.

- Violet Brown, Xi Chen, Maryam Hedayati, Camden Sikes, Julia Strand, **Tegan Wilson**, David Liben-Nowell. (2019) *Node Ordering for Rescalable Network Summarization (or, the Apparent Magic of Word Frequency and Age of Acquisition in the Lexicon).* In: Aiello L., Cherifi C., Cherifi H., Lambiotte R., Lió P., Rocha L. (eds) Complex Networks and Their Applications VII. COMPLEX NETWORKS 2018. Studies in Computational Intelligence, vol 812. Springer, Cham

INVITED TALKS

- "*Random and Universal Connection Schedules for Reconfigurable Networks*" at the Workshop on Reconfigurable Networks, June 2025
- Guest lecture for CS 395T at UT Austin, April 2025
- "*Breaking the VLB Barrier for Oblivious Reconfigurable Networks.*"
  - Brown University CS Theory Seminar, Nov 2024
  - University of Wisconsin Madison CS Theory Seminar, Oct 2024
  - Northeastern University CS Theory Seminar, Oct 2024
  - Cornell Theory Seminar, Jan 2024
- "*Probabilistic Tail Bounds from* Breaking the VLB Barrier for Oblivious Reconfigurable Networks."
  - University of Wisconsin Madison CS Theory Seminar, March 2025
  - Northeastern University CS Theory Seminar, Feb 2025
  - Graduate Student Combinatorics Conference, March 2024.
- Invited speaker at Northwestern and TTIC Junior Theorists Workshop, Fall 2023
- "*Optimal Oblivious Reconfigurable Networks.*"
  - Georgia Tech ARC Colloquium Series, Feb 2024
  - Rutgers DiMACS Theory Seminar, Feb 2023.
  - Columbia University Theory Seminar, Oct 2022.
  - Cornell Theory Seminar, May 2022. (video)
- "*Using Exchangeable Pairs for Matrix Inequalities.*" Cornell Theory Tea, Spring 2022
- "*An Introduction to Graph Coloring Problems.*" Women and Mathematics Ambassador Program, March 2019

TEACHING

- **At Cornell**
  TA for CS4830: Introduction to Cryptography — Fall 2022
  Head TA for CS4820: Introduction to Analysis of Algorithms — Fall 2018, Fall 2021, Spring 2022, Spring 2024
  - TA Award for Spring 2022
- **At Carleton**
  Course grader for selected math courses: 211, 236, 321, 331, and 332 — 2016 - 2018
  Girls Who Code Volunteer Teacher in Northfield, MN — 2016 - 2017

LEADERSHIP AND MENTORING

- Cornell Graduate Students for Gender Inclusion in Computing (GSGIC)
  Treasurer 2019 - 2021, Co-President 2021-2022, President 2022 - 2023
- Cornell CS Student Applicant Support Program Reviewer — 2020-2023
- Carleton College CS Tea on Graduate School – Panelist — Sept 2022
- STOCial Program Student Lunch Organizer — 2022
- Women in Computing at Cornell (WICC) Mentor — Fall 2021

- Cornell CS First Year PhD Mentor 2019 - 2021
- Carleton College Lovelace (Women in CS student group) Board Member 2016 - 2018
- Lovelace (Women in CS student group) and SWiMS (Society for Women in Math and Stats) Student Mentor 2017 - 2018