TEGAN WILSON

Khoury Distinguished Postdoctoral Fellow at Northeastern University

te.wilson@northeastern.edu

EDUCATION

- **PhD Candidate in Computer Science**, Cornell University — Earned Aug 2024
  Advisor: Robert Kleinberg

- **M.S. in Computer Science**, Cornell University — Earned December 2021
  Advisor: Robert Kleinberg

- **B.A. in Mathematics and Computer Science**, Carleton College — Sept 2014 - June 2018
  Advisors: Layla Oesper and Mark Krusemeyer

- **Study Abroad**
  Budapest Semesters in Mathematics — Fall 2016
  Hokkaido International Foundation Language and Homestay Program — Summer 2016

PAPERS

- 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

- "*Probabilistic Tail Bounds from* Breaking the VLB Barrier for Oblivious Reconfigurable Networks." Graduate Student Combinatorics Conference, March 2024.

- "Optimal Oblivious Reconfigurable Networks." At the Georgia Tech ARC Colloquium Series, Feb 2024

- "Breaking the VLB Barrier for Oblivious Reconfigurable Networks." Cornell Theory Seminar, Jan 2024

- Invited speaker at Northwestern and TTIC Junior Theorists Workshop, Fall 2023

- "Optimal Oblivious Reconfigurable Networks."

  – 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 (slides)
- "An Introduction to Graph Coloring Problems." Women and Mathematics Ambassador Program, March 2019

INTERNSHIPS AND WORK EXPERIENCE

- 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

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
- **Other**
  Cornell Swing Dance TA (PE 1170, 1171)   Spring 2020, Fall 2021
  Cornell West Coast Swing Dance Network Instructor   Fall 2019 - Spring 2022

LEADERSHIP

- Cornell Graduate Students for Gender Inclusion in Computing (GSGIC)
       Treasurer 2019 - 2021, Co-President 2021-2022, President 2022 - 2023
- STOCial Program Student Lunch Organizer   2022
- Carleton College Lovelace Board Member   2016 - 2018

MENTORING

- Cornell CS Student Applicant Support Program Reviewer   2020-2023
- Carleton College CS Tea on Graduate School – Panelist   Sept 2022
- Women in Computing at Cornell (WICC) Mentor   Fall 2021
- Cornell CS First Year PhD Mentor   2019 - 2021
- Lovelace/SWiMS (Society for Women in Math and Stats) Student Mentor   2017 - 2018