# TEGAN WILSON

Khoury Distinguished Postdoctoral Fellow at Northeastern University te.wilson@northeastern.edu

#### **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

### **PUBLICATIONS**

- 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

# INTERNSHIPS AND WORK EXPERIENCE

• 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	$\mathrm{Dec}\ 2015$ - $\mathrm{June}\ 2018$

#### **TEACHING**

•	$\mathbf{At}$	Cornell
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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
Girls Who Code Volunteer Teacher in N	orthfield MN

2016 - 2018 2016 - 2017

## LEADERSHIP AND MNETORING

• Cornell CS First Year PhD Mentor

• 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 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