

KIRAN TOMLINSON

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EDUCATION

PhD Candidate, Computer Science Cornell University <i>Advisor: Jon Kleinberg</i>	2019–
MS, Computer Science Cornell University	2019–2022
BA, Computer Science and Mathematics Carleton College <i>Summa Cum Laude, Distinction in Computer Science and in Mathematics</i>	2015–2019

ACADEMIC APPOINTMENTS

Visiting Instructor in Computer Science, Carleton College <i>Winter 2023: Data Structures (2x)</i> <i>Spring 2023: Data Structures, Mathematics of Computer Science</i>	2023
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INTERNSHIPS

Microsoft Research <i>Productivity and Intelligence Group, with Jennifer Neville</i>	Summer 2022
Microsoft <i>Office of Applied Research, with Longqi Yang and Mengting Wan</i>	Summer 2021
NASA Johnson Space Center <i>Spacecraft Software Engineering Branch, with Nathan Uitenbroek</i>	Summer 2016 & Summer 2017

PUBLICATIONS

*Equal contribution, (α - β) alphabetical order

12. **Kiran Tomlinson**, Johan Ugander, and Jon Kleinberg. The Moderating Effect of Instant Runoff Voting. *38th AAAI Conf. on Artificial Intelligence (AAAI)*, 2024.
11. **Kiran Tomlinson** and Austin R. Benson. Graph-based Methods for Discrete Choice. *Network Science*, 2023.
10. **Kiran Tomlinson**, Jennifer Neville, Longqi Yang, Mengting Wan, and Cao Lu. Workplace Recommendation with Temporal Network Objectives. *29th Int. Conf. on Knowledge Discovery and Data Mining (KDD)*, 2023.
9. **Kiran Tomlinson**, Mengting Wan, Cao Lu, Brent Hecht, Jaime Teevan, and Longqi Yang. Targeted Training for Multi-organization Recommendation. *ACM Transactions on Recommender Systems* 1(3), 2023.
8. **Kiran Tomlinson**, Johan Ugander, and Jon Kleinberg. Ballot Length in Instant Runoff Voting. *37th AAAI Conf. on Artificial Intelligence (AAAI)*, 2023.
7. **Kiran Tomlinson**, Johan Ugander, and Austin R. Benson. Choice Set Confounding in Discrete Choice. *27th Int. Conf. on Knowledge Discovery and Data Mining (KDD)*, 2021.
6. **Kiran Tomlinson** and Austin R. Benson. Learning Interpretable Feature Context Effects in Discrete Choice. *27th Int. Conf. on Knowledge Discovery and Data Mining (KDD)*, 2021.
5. **Kiran Tomlinson** and Austin R. Benson. Choice Set Optimization Under Discrete Choice Models of Group Decisions. *37th Int. Conf. on Machine Learning (ICML)*, 2020.
4. Patty Commins, David Liben-Nowell, Tina Liu, and **Kiran Tomlinson** (α - β). Summarizing Diverging String Sequences, with Applications to Chain-Letter Petitions. *31st Annual Symposium on Combinatorial Pattern Matching (CPM)*, 2020.
3. Zach DiNardo*, **Kiran Tomlinson***, Anna Ritz, and Layla Oesper. Distance Measures for Tumor Evolutionary Trees. *Bioinformatics* 38 (7), 2020.

2. **Kiran Tomlinson** and Layla Oesper. Parameter, Noise, and Tree Topology Effects in Tumor Phylogeny Inference. *BMC Medical Genomics* 12 (10), 2019.
1. **Kiran Tomlinson** and Layla Oesper. Examining Tumor Phylogeny Inference in Noisy Sequencing Data. *IEEE Int. Conf. on Bioinformatics and Biomedicine (BIBM)*, 2018.

PREPRINTS/WORKING PAPERS

2. **Kiran Tomlinson**, Tanvi Namjoshi, Johan Ugander, and Jon Kleinberg. Replicator Dynamics for Candidate Positioning in Plurality Elections. *Working paper*, 2024.
1. Ben Aoki-Sherwood, Catherine Bregou, David Liben-Nowell, **Kiran Tomlinson**, and Thomas Zeng (α - β). Bounding Consideration Probabilities in Consider-Then-Choose Ranking Models. *arXiv:2401.11016*, 2024.

PATENTS

1. **Kiran Tomlinson**, Longqi Yang, Mengting Wan, Cao Lu, Brent Hecht, and Jaime Teevan. Targeted training of inductive multi-organization recommendation models for enterprise applications. *US20230128832A1*, *pending*, filed 10/26/2021.

INVITED TALKS

- “Algorithmic Perspectives on Instant Runoff Voting.” Cornell CS Theory Seminar, Aug 2023.
- “Choices in Networks.” NetSci-SINM, Jul 2023.
- “A Computational Look at Ranked-Choice Voting.” Carleton College CS Tea, May 2023.
- “Choice Models for Networks and Networks for Choice Models.” Network Dynamics and Choice Theory Workshop @ UVM, May 2022.
- “Feature Context Effects and Choice Set Confounding in Discrete Choice.” WPI, CS 525, Apr 2021.
- “Feature Context Effects and Choice Set Confounding in Discrete Choice.” Cornell/MIT MURI, Mar 2021.
- “Learning Interpretable Feature Context Effects in Discrete Choice.” Stanford Ugander Lab, Dec 2020.

WORKSHOP TALKS

- “Workplace Recommendation with Temporal Network Objectives.” NetSci, Jul 2023.
- “Learning Context Effects in Triadic Closure.” NetSci-SINM, Sep 2020.
- “Distance Measures for Tumor Evolutionary Trees.” RECOMB-CCB (with Zach DiNardo), May 2019.

HONORS

Phi Beta Kappa	2019
Sigma Xi	2019
CRA Outstanding Undergraduate Researcher Honorable Mention	2018
Goldwater Scholarship Honorable Mention	2018
Patricia V. Damon Scholarship	2018
NSF Student Travel Award (to BIBM)	2018
Carleton College Dean’s List	2016, 2017, 2018
National Merit Scholarship	2015–2018

TEACHING ASSISTANTSHIPS

Cornell University	
CS 2110: Object-Oriented Programming and Data Structures	Fall 2019
CS 2800: Discrete Structures	Spring 2020
Carleton College	
CS 201: Data Structures	Winter 2018, Spring 2019
CS 202: Mathematics of Computer Science	Fall 2017, Spring 2018
CS 254: Computability and Complexity	Fall 2018, Winter 2019

SERVICE

Program Committees

AAAI '23, '24

WebConf '24

Journal Reviewing

Biometrika

Data Mining and Knowledge Discovery

Annals of Mathematics and Artificial Intelligence

Information Processing and Management

NeurIPS Workshop Organizer

2021

The Workshop on Human and Machine Decisions (WHMD '21)

PhD Admissions Committee

2021, 2022

Cornell University Computer Science Department

Graduate and Professional Student Assembly Representative (elected)

2019–2020

Cornell Computer Science Graduate Organization