

KIRAN TOMLINSON

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EMPLOYMENT

| | |
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| Senior Researcher <i>Microsoft Research, AI Interaction and Learning Group</i> | 2024– |
| Visiting Instructor <i>Carleton College, Department of Computer Science</i> | 2023 |

EDUCATION

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|---|-----------|
| PhD, Computer Science Cornell University <i>Advisor: Jon Kleinberg</i> | 2019–2024 |
| 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 |

INTERNSHIPS

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|---|---------------------|
| 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> | Summers 2016 & 2017 |

PUBLICATIONS

*Equal contribution, (α – β) alphabetical order

14. Ben Aoki-Sherwood, Catherine Bregou, David Liben-Nowell, **Kiran Tomlinson**, and Thomas Zeng (α – β). When the Universe is Too Big: Bounding Consideration Probabilities for Plackett-Luce Rankings. *28th Int. Conf. on Artificial Intelligence and Statistics (AISTATS)*, 2025.
13. **Kiran Tomlinson**, Tanvi Namjoshi, Johan Ugander, and Jon Kleinberg. Replicating Electoral Success. *39th AAAI Conf. on Artificial Intelligence (AAAI)*, 2025.
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

1. **Kiran Tomlinson**, Johan Ugander, and Jon Kleinberg. Exclusion Zones of Instant Runoff Voting. *arXiv*, 2025.

PATENTS

2. Longqi Yang, Mengting Wan, Cao Lu, Jennifer Neville, and **Kiran Tomlinson**. Intelligent system and method of optimizing cross-team information flow. *US20240354703A1 (pending)*, filed Apr 20, 2023.
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. *US11983649B2*, May 14, 2024 (filed Oct 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

- “Exclusion Zones in Instant Runoff Elections.” AMS Special Session on Mathematics of Decisions, Elections, and Games @ JMM, Jan 2025.
- “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.

AWARDS

| | |
|---|------------------|
| The Web Conference Outstanding Reviewer | 2024 |
| 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

Carleton College (Instructor)

CS 201: Data Structures

Winter 2023 ($\times 2$), Spring 2023

CS 202: Mathematics of Computer Science

Spring 2023

Cornell University (Teaching Assistant)

CS 2110: Object-Oriented Programming and Data Structures

Fall 2019

CS 2800: Discrete Structures

Spring 2020

Carleton College (Prefect)

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, '25

AISTATS '25

ICML '25

ICWSM '25

NeurIPS '24

WebConf '24, '25

Journal Reviewing

Science Advances

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