# KIRAN TOMLINSON

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## EMPLOYMENT

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|---|---:|
| **Senior Researcher** | 2024– |
| *Microsoft Research* | |
| **Visiting Instructor** | 2023 |
| *Carleton College, Department of Computer Science* | |

## EDUCATION

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|---|---:|
| **PhD, Computer Science** | 2019–2024 |
| Cornell University | |
| *Advisor: Jon Kleinberg* | |
| **MS, Computer Science** | 2019–2022 |
| Cornell University | |
| **BA, Computer Science and Mathematics** | 2015–2019 |
| Carleton College | |
| *Summa Cum Laude, Distinction in Computer Science and in Mathematics* | |

## INTERNSHIPS

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

## PUBLICATIONS
*Equal contribution, ($\alpha$–$\beta$) 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** ($\alpha$–$\beta$). 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

2. **Kiran Tomlinson**, Tanvi Namjoshi, Johan Ugander, and Jon Kleinberg. Replicating Electoral Success. *arXiv:2402.17109*, 2024.

1. Ben Aoki-Sherwood, Catherine Bregou, David Liben-Nowell, **Kiran Tomlinson**, and Thomas Zeng ($\alpha$–$\beta$). 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.

### AWARDS

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| **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 ASSISTANTSHIPS

**Cornell University**
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|---|---|
| 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

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**Program Committees**
*AAAI '23, '24, '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*