

# Rohan Alexander

Assistant Professor, Information and Statistical Sciences, University of Toronto

Room 714, 140 St George St, Toronto, Ontario, M5S 3G6, Canada

✉ rohan.alexander@utoronto.ca    🌐 RohanAlexander    🐦 rohanalexander    🌐 rohanalexander.com

## Academic appointments

- Assistant Professor, Information & Statistical Sciences, University of Toronto      July 2020 - *Current*
  - Parental leave: From June to August 2021 I was on parental leave.
  - COVID-19: From March to December 2020 I shared full-time childcare duties (0.5 FTE on average). From January 2021 to May 2021, and again from September to December 2021, I shared part-time childcare duties, (0.25 FTE on average).
- Assistant Director, Canadian Statistical Sciences Institute (CANSSI) Ontario      September 2021 - *Current*
- Senior Fellow, Massey College      September 2021 - *Current*
- Academic Lead, Short courses, Data Sciences Institute      July 2021 - *Current*
- Faculty Affiliate, Schwartz Reisman Institute for Technology and Society      August 2020 - *Current*
- Co-lead, Data Sciences Institute Thematic Program in Reproducibility      November 2021 - June 2023
- Post-doctoral Fellow, Information, supervised by Kelly Lyons      July 2019 - July 2020

## Education

- PhD (Economics), Australian National University      February 2015 - December 2019
  - Dissertation title: *Essays on Applied Historical Labour Economics*.
  - Committee: John Tang (chair); Martine Mariotti; Tim Hatton; and Zach Ward.
- M. Economics, Australian National University      February 2012 - November 2012
- B. Economics, University of Queensland      February 2004 - November 2008

## Book

- Alexander, Rohan, *Telling Stories with Data*, (hard-copy publication expected by Chapman and Hall/CRC in 2023).

## Edited book

- Kennedy, Lauren, Rohan Alexander, and Andrew Gelman, (editors), *Multilevel Regression and Post-stratification: A Practical Guide and New Developments*, (accepted by Cambridge University Press in July 2021).

## Journal articles

- Horton, Nicholas, Rohan Alexander, Aneta Piekut, and Colin Rundel, 2022, 'Editorial: The Growing Importance of Reproducibility and Responsible Workflow in the Data Science and Statistics Curriculum', *Journal of Statistics and Data Science Education*, <https://doi.org/10.1080/26939169.2022.2141001>.
- Collins, Annie, and Rohan Alexander, 2022, 'Reproducibility of COVID-19 pre-prints', *Scientometrics*, 4 July, <https://doi.org/10.1007/s11192-022-04418-2>.
- Alexander, Rohan, and Zach Ward, 2018, 'Age At Arrival and Assimilation In The Age Of Mass Migration', *The Journal of Economic History*, 78(3), pp. 904-937, <https://doi.org/10.1017/S0022050718000335>.

## Peer-reviewed conference proceedings<sup>1</sup>

- Ferguson, Sharon, Paula Akemi Aoyagui, Rohan Alexander, Anastasia Kuzminykh, 2022, 'A Thematic Comparison of Human and AI Explanations of Sexism Assessment', *Human Centered AI Workshop at NeurIPS*.

<sup>1</sup>My work is interdisciplinary and there are different norms for publication in different disciplines. Items in this list are comparable to a journal article in social sciences.

## Pre-prints

- Chiu, Ke-Li, Annie Collins, and Rohan Alexander, 2022, 'Detecting Hate Speech with GPT-3', *arXiv*, 24 March, <https://arxiv.org/abs/2103.12407>.
- Alexander, Rohan, and Monica Alexander, 2021, 'The Increased Effect of Elections and Changing Prime Ministers on Topics Discussed in the Australian Federal Parliament between 1901 and 2018', *arXiv*, 17 November, <https://arxiv.org/abs/2111.09299>.
- Alexander, Rohan, Samantha-Jo Caetano, Haoluan Chen, Michael Chong, Annie Collins, Shirley Deng, Isaac Ehrlich, Paul Hodgetts, Yena Joo, Marija Pejcinovska, Mariam Walaa, and Matthew Wankiewicz, 2021, 'An Introduction to DoSStoolkit', *arXiv*, 19 May, <https://arxiv.org/abs/2105.09347>.
- Chiu, Ke-Li, and Rohan Alexander, 2021, 'On consistency scores in text data with an implementation in R', *arXiv*, 13 January, <https://arxiv.org/abs/2101.05225>.
- Hodgetts, Paul A., and Rohan Alexander, 2020, 'cesR: An R package for the Canadian Election Study', *SocArXiv*, 3 September, <https://osf.io/preprints/socarxiv/a29h8/>.

## Software

- Alexander, Rohan, and Paul A. Hodgetts, 2021, *AustralianPoliticians*.
- Hodgetts, Paul A., and Rohan Alexander, 2021, *cesR*.
- Alexander, Rohan, and A Mahfouz, 2021, *heaps of papers*.

## Awards

- 2022 ANU Australian Politics Studies Centre Visiting Scholar (\$2,500)
- Honourable Mention, 2021 Master of Information Student Council Instructor Awards

## Grants

- Data Sciences Institute (DSI) Catalyst Grant February 2023 - January 2024
  - \$100,000 for 'Providing data to improve representation by public officials'.
  - Investigators: Peter Loewen (Named PI), Rohan Alexander (co-PI), Aya Mitani (co-PI), Elena Tuzhilina (co-PI).
- CANSSI Ontario Data Access Grant January 2023
  - \$5,000 to purchase data in support 'Developing a large-scale lobbying and political donations dashboard to foster access to and interdisciplinary research on democratic accountability and political donations'.
  - Co-PIs: Rohan Alexander and Chris Cochrane.
- Australian Research Council Discovery Projects January 2023 - December 2025
  - \$287,146 for 'Australian Parliamentary Speech: How Deliberative? How Representative?'
  - Investigators: Marija Taflaga (Chief Investigator), Keith Dowding (Chief Investigator), Kenneth Benoit (Partner Investigator), Rohan Alexander (Partner Investigator).
- U of T Data Sciences Institute Data Access Grant November 2022 - November 2023
  - \$9,993 to purchase data in support of the project 'Developing a large-scale lobbying and political donations dashboard to foster access to and interdisciplinary research on democratic accountability and political donations'.
  - Co-PIs: Rohan Alexander and Chris Cochrane.
- SSHRC Connection Grant October 2022 - September 2024
  - \$50,000 on the project 'Follow the money: Mobilizing Canadian political donations data'.
  - PI: Rohan Alexander.
  - Co-investigators: Jacob Robbins-Kanter, Wing Cheung Michael Wong, Zane Schwartz.
- SSHRC Partnership Development Grant June 2022 - June 2024
  - \$169,855 on the project 'Follow the Money: Donors, Donations, and Parties in Canadian Politics'.
  - PI: Christopher Cochrane.
  - Co-applicant: Harold Jansen, Jacob Robbins-Kanter, Michael Pereira, Randy Besco, Rohan Alexander, Michael Wing-Cheung Wong, and Zane Schwartz.
- Mitacs Accelerate with Investigative Journalism Foundation of Canada June 2022 - November 2022

- \$48,000 to support an intern associated with ‘Follow the Money: Investigating Political Donations in Canada’.
- Co-PIs: Rohan Alexander and April Lindgren.
- U of T Data Sciences Institute Summer Undergraduate Data Science May 2022 - August 2022
  - \$7,500 to support an undergraduate over summer on the project ‘Disparities in climate-induced health outcomes in the Greater Toronto Area’.
  - Co-PIs: Rohan Alexander and Monica Alexander.
- U of T School of Cities Urban Challenge Grant January 2022 - December 2022
  - \$75,000 toward RAs and expenses associated with the project ‘Disparities in climate-induced health outcomes in the Greater Toronto Area’.
  - Co-PIs: Rohan Alexander, Monica Alexander, Karen Smith, and Micah Hower.
- U of T Data Sciences Institute Data Access Grant December 2021 - April 2022
  - \$10,000 to purchase ICES data in support of the project ‘Disparities in climate-induced health outcomes in the Greater Toronto Area’.
  - Co-PIs: Rohan Alexander and Monica Alexander.
- U of T Faculty of Information SSHRC Institutional Grant November 2021 - March 2022
  - \$3,500 to support an RA on the project ‘At what cost? Using Hansard data to understand the public policy that went ‘missing’ due to COVID-19’.
  - PI: Rohan Alexander.
- U of T Faculty of Arts & Science Pedagogical Innovation and Experimentation Fund September 2021 - March 2022
  - \$10,000 to continue developing the DoSS toolkit.
  - Co-PIs: Rohan Alexander, and Samantha-Jo Caetano.
- CANSSI Ontario Workshop/Lecture (COWL) Program February 2021
  - \$1,000 to support undergraduate research.
  - PI: Rohan Alexander.
- CANSSI Ontario Multidisciplinary Doctoral (Mdoc) training program September 2021 - September 2025
  - \$10,000 annually for five years to support a PhD student.
  - Co-PIs: Rohan Alexander, and Monica Alexander.
- Mitacs Accelerate with Sensibill June 2021 - November 2021
  - \$30,000 to support an intern associated with ‘Robust Taxonomy out of Receipt Item Labels’
  - Co-PIs: Rohan Alexander and Michael Guerzhoy.
- U of T Faculty of Arts & Science Pedagogical Innovation and Experimentation Fund September 2020 - March 2021.
  - \$15,000 to develop an applied statistics toolkit.
  - Co-PIs: Rohan Alexander, and Samantha-Jo Caetano.
- UCL & U of T Strategic Partner Funds for AI collaborations July 2020 - December 2020
  - \$25,000 for ‘AI Governance: Building ethical frameworks to balance risk and innovation’.
  - Co-PIs: Elizabeth Lomas, Kelly Lyons, Jenny Bunn, and Rohan Alexander.

## Teaching experience

### PHD

- Instructor, ‘INF3104: Data Science Foundations’, Information Winter 2023

### MASTERS

- Instructor, ‘INF2178: Experimental Design for Data Science’, Information Winter 2021
- Instructor, ‘INF2178: Experimental Design for Data Science’, Information Winter 2020

### UNDERGRADUATE

- (Upcoming) Instructor, ‘STA302: Methods of Data Analysis I’, Statistical Sciences Winter 2024
- (Upcoming) Instructor, ‘INF312: Worlds Become Data’, Information Winter 2024
- Instructor, ‘INF312: Worlds Become Data’, Information Winter 2023

- Instructor, 'INF312: Worlds Become Data', Information Winter 2022
- Instructor, 'STA304: Surveys, Sampling and Observational Data', Statistical Sciences Winter 2022
- Instructor, 'STA304: Surveys, Sampling and Observational Data', Statistical Sciences Fall 2020

## Supervisory experience

### PHD

- Ciara Zogheib, Information September 2022 - Current

### MASTERS

- Lorena Almaraz De La Garza, Information (academic supervisor) June 2022 - September 2022
  - Research paper: *Machine Learning Inference for Demographic Features of Political Donors*
  - First placement: Senior AI/ML Model Steward Partner at Thomson Reuters
- Ciara Zogheib, Information (thesis supervisor) September 2021 - June 2022
  - Thesis: *The 'Paper and Pencil' Operations of Interdisciplinarity: Interdisciplinary Integration as Information Practice*
  - First placement: PhD student at University of Toronto
- Elisa Du, Applied Computing (academic supervisor) March 2021 - December 2021
  - Thesis: *Enriched Understanding of Retail Receipts for Personalized Financial Insights*
  - First placement: Machine Learning Engineer at Sensibill
- Thomas William Rosenthal, Information (academic supervisor) January 2021 - April 2021
  - Research paper: *A Machine Learning Exploration into the Attributes that Define Single-Origin Coffee*
  - First placement: Data Scientist at Purpose Analytics

### UNDERGRADUATE

- Connor Glossop, Engineering (senior thesis) September 2022 - Current
  - Thesis: *Analyzing Political Polarization in Canada's Parliament*
- Callie Moore, Engineering (senior thesis) September 2021 - April 2022
  - Thesis: *Dyadic Representation in Canadian Parliament*
  - First placement: Data Analyst, Hospital for Sick Children
- Jeremy Hunt, Engineering (senior thesis) September 2020 - April 2021
  - Thesis: *Study of Software Tool Usage in Academics*

## Service

### OUTREACH

- Co-organizer, *Toronto Data Workshop* September 2019 - Current
- Organizer, *3rd Toronto Conference on Reproducibility* 23 February 2023
- Local host, *Toronto Replication Games* 22 February 2023
- Organizer, *Florence Nightingale Day* 18 February 2023
- Organizer, *CANSSI Ontario Statistical Software Conference* 10 November 2022
- Organizer, *Florence Nightingale Day* 9 April 2022
- Organizer, *2nd Toronto Workshop on Reproducibility* 23-25 February 2022
- Organizer, *1st Toronto Workshop on Reproducibility* 25-26 February 2021
- Co-organizer, *MRP Working Group* January 2020 - November 2021

### DEPARTMENTAL AND UNIVERSITY COMMITTEES

- Member, Advisory Committee, Dean Search, Faculty of Information November 2022 - Current
- Chair, Data Sciences Speaker Series Selection Committee, Data Sciences Institute March 2022 - Current
- Chair, Applied Research and Education Seminar Series, Statistical Sciences July 2022 - Current
- Member, BI Recruitment and Admission Committee, Information July 2021 - Current
- Member, Graduate Committee, Statistical Sciences July 2020 - Current
- Member, Search Committee, Dalla Lana School of Public Health, Assistant Professor—Data Science Methods for Population Health and Health Systems July 2022 - February 2023

- Member, Faculty of Arts and Sciences Computation and Data Science Education Working Group  
September 2021 - July 2022
- Member, Applied Research and Education Seminar Series, Statistical Sciences July 2020 - June 2022
- Advisor, *Statistical Sciences PhD Student Research Day* 25 May 2022
- Co-organizer, *Statistical Sciences PhD Practice Job Talk Day* 17 December 2021
- Member, U of T Library Technical Skills Outreach Project July 2021 - June 2022
- Member, Search Committee, Information, HCDS Teaching Stream Assistant Professor, November 2021  
- April 2022
- Member, Search Committee, Information, Learning Hub Director and Teaching Stream Assistant  
Professor November 2020 - April 2020
- Member, Awards Committee, Information July 2020 - November 2020

#### EXAM AND THESIS COMMITTEES

- Member, Centre for Criminology and Sociolegal Studies PhD Thesis Committee, Jamie Duncan  
January 2023 - *Current*
- Chair, Statistical Sciences, PhD Oral Exam Committee, Michaël Lalancette 14 July 2022
- Member, Information, PhD Thesis Committee, Mirai Gendi January 2022 - *Current*  
– Title: *Data science and process mining with application to digital forensics*
- Second Reader, Information, MI Thesis Defense, June Lim 9 September 2021  
– Title: *Gendered Voices in Japanese Popular Music: A Data-Driven Analysis*
- Member, Statistical Sciences, PhD Oral Exam Committee, Alex Stringer 27 April 2021
- Member, Statistical Sciences, PhD Oral Exam Committee, Arvind Shrivats 12 February 2021
- Member, Statistical Sciences, PhD Oral Exam Committee, Zhen Qin 12 January 2021

#### EDITORIAL SERVICE

- Associate Editor, Journal of Statistics and Data Science Education Summer 2021 - *Current*

#### REFEREEING

- 2023: Journal of Statistics and Data Science Education (x1); Social Sciences and Humanities Research Council of Canada; Archival Science.
- 2022: CRC Press; Journal of Statistics and Data Science Education (x3); Political Analysis; Records Management Journal.
- 2021: CRC Press (x3); Journal of Statistics and Data Science Education (x2).
- 2020: Canadian Journal of Political Science (x2); Political Analysis; Harvard Data Science Review; The Economic Record.

#### Presentations

- *From teaching to practice: Insights from the Toronto Reproducibility Conferences*  
– (Upcoming) 5-10 August 2023, Joint Statistical Meetings (JSM), Toronto.  
– (Upcoming) 30 May - 3 June 2023, Statistical Society of Canada Data Science and Analytics Section Session on Reproducibility, Toronto.
- *Climate justice and credible data science*  
– 7 March 2023, U of T, Faculty of Information, Guest lecture, “Communities and Values”.
- *Worlds become data*  
– 16 February 2023, U of T, Faculty of Medicine, Adventures In Science Mentorship Program.
- *Testing, testing, is this thing right?*  
– 27 January 2023, Quantitative Methods Cluster, University of Toronto.  
– 30 November 2022, FCT Abuja, Nigeria, UseR Group, (online).  
– 9 November 2022, Workshop in Computational & Quantitative Social Sciences, Toronto.
- *The growing importance of reproducibility and responsible workflow in the data science and statistics curriculum*  
– 13 December 2022, Panelist, CAUSE/JSDSE Webinar Series (online).
- *Reproducible workflows*

- 2 November 2022, Biostatistics seminar series, Centre for Outcomes Research, McGill University Health Centre – Research Institute (online).
- *Rethinking data science*
  - 6 October 2022, Toronto Data Workshop, Toronto.
- *On the role of reproducibility in data science*
  - 4 August 2022, Stanford Data Science (online).
- *Integrating reproducibility into undergraduate data science teaching*
  - 14 July 2022, Australasian Teaching Economics Conference, (online).
  - 4 June 2022, Canadian Economics Association Conference, Carleton University, Ottawa.
- *On the double burden of disadvantage in data science*
  - 17 June 2022, We All Count, Talking Data Equity (online).
- *Reproducible Data Science Workflows in R*
  - 11 January 2022, Accra R User Ghana R Conference (online)
- *What data science can learn from the James Webb Space Telescope*
  - 17 December 2021, University of Toronto Statistics and Machine Learning (SMILE) Journal Club (online).
- *On the privilege of turning our world into data*
  - 16 December 2021, Young Irish Statisticians (online).
- *A super opinionated talk about data science, APIs, and grad school applications*
  - 18 November 2021, University of Toronto, Undergraduate Statistical Sciences Union Workshop (online).
- *Remarks on data science*
  - 19 October 2021, University of Toronto, Trinity College High Table (online).
- *Introduction to Andrew Gelman*
  - 17 September 2021, University of Toronto, Data Sciences Institute launch (online).
- *Introduction to R*
  - 22 December 2020, University of Toronto, Global Society for Genetics and Genome Biology (online).
- *Turning Our World Into Data*
  - 7 July 2021, Harvard Biostatistics Data Science in Action Summer Camp (online).
- *Choosing the optimal set of co-variables to satisfy competing priorities in multi-level regression with post-stratification*
  - 6 May 2020, MRP Reading Group (online).
- *Forecasting Parliamentary Elections*
  - 10 December 2019, Monash University, Department of Econometrics & Business Statistics, Melbourne.
  - 9 December 2019, Australian Society for Quantitative Political Science Conference, Melbourne.
  - 2 December 2019, Australian National University, Cake for Comments, Canberra.
  - 20 November 2019, POP Politics Workshop, Canberra.
  - 17 October 2018, University of Toronto, Political Behaviour Group, Toronto.
- *A Word-Count Based Classifier of Politicians in the Australian Federal Parliament (1901–2018)*
  - 4 September 2019, European Consortium for Political Research, General Conference, Wroclaw.
  - 22 June 2019, European Political Science Association, Annual Conference, Belfast.
  - 18 June 2019, Quantitative Text Analysis Workshop, Dublin.
- *The Effect of Elections and Prime Ministers on Discussion in the Australian Federal Parliament (1901–2018)*
  - 11 January 2019, Political Methodology Specialist Group, Annual Conference, Warwick.
  - 11 December 2018, Max Planck Institute for Demographic Research, Rostock.
  - 22 November 2018, University of Toronto, Political Behaviour Group, Toronto.
  - 25 October 2018, Australian National University, Research School of Economics, Canberra.
  - 25 October 2018, Parliamentary Library, Parliament of Australia, Canberra.
  - 24 October 2018, Australian National University, School of Politics and International Relations, Canberra.
- *Exploring Australia's Hansard (1901–2017)*
  - (Poster) 7–9 September, 2018 Economic History Association Meeting, Montreal.

- *A Surnames-Based Analysis of Tasmanian Social Mobility (1803–2015)*
  - 20 May 2016, UC Berkeley, Economic History Lunch, Berkeley.
  - 2 May 2016, Australian National University, Research School of Economics, Canberra.