

# Katie Warburton

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## Education

### Ph.D. in Cognitive Science

2021 - present

University of Melbourne; University of Toronto

Melbourne, Australia; Toronto, Canada

- **Supervisors:** Charles Kemp, Yang Xu, Lea Frermann
- Jointly awarded degree from the UofT-UoM International Research Training Group

### B.Comp (Hons) with a Specialization in Cognitive Science

2017 - 2021

Queen's University

Kingston, Canada

- GPA: 4.2
- Received the medal in computing which is awarded to the student who has achieved the highest standing in a plan offered by the awarding department.

## Research Experience

### UofT-UoM International Research Training Group

Sept. 2021 - Present

Doctoral Candidate

- **Thesis:** The Structure and Evolution of Hierarchical Category Systems
- **Supervisors:** Charles Kemp, Yang Xu, Lea Frermann
- Previously developed computational methods for quantifying biases in hierarchical category systems, using library classification systems and subject headings as case studies
- Currently combining computational and experimental methods to explore sequence effects in the evolution of hierarchical category systems

### Queen's School of Computing

May 2020 - April 2021

Undergraduate Thesis

- **Title:** Using Correlations of Word Frequency to Find Clusters in Unstructured Radiology Reports
- **Supervisor:** Randy Ellis
- Researched and implemented methods for the natural language processing of lung cancer radiology reports
- Applied topic modeling and clustering algorithms to aid in report processing
- Funded by an NSERC Undergraduate Student Research Award

### Dept. of Languages, Literatures and Cultures, Queen's University

June 2019 - Aug. 2019

Undergraduate Research Assistant

- **Supervisors:** Nathan Thanyehténhas Brinklow, Lorena Jessop
- Assisted with the development of an automatic speech recognition model for Kanyen'kéha, a polysynthetic language

## Publications

**Warburton, K.,** Kemp, C. & Frermann, L. (2025). Scientists & Women Scientists: Exploring Gender Biases in Institutional Category Systems. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 47.

**Warburton, K.,** Kemp, C., Xu, Y. & Frermann, L. (2024). Quantifying Bias in Hierarchical Category Systems. *Open Mind: Discoveries in Cognitive Science*, 8, 102-130.

**Warburton, K.,** Kemp, C., Xu, Y. & Frermann, L. (2023). Quantifying Bias in Library Classification Systems. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 45.

## Presentations

**Warburton, K.**, Kemp, C., & Frermann, L. (July, 2025). *Scientists & Women Scientists: Exploring Gender Biases in Institutional Category Systems*. Annual Meeting of the Cognitive Science Society, San Francisco, United States. Conference Poster.

**Warburton, K.**, Kemp, C., Xu, Y. & Frermann, L. (July, 2023). *Quantifying Bias in Library Classification Systems*. Annual Meeting of the Cognitive Science Society, Sydney, Australia. Conference Poster.

Teaching Experience \_\_\_\_\_

<b>University of Melbourne</b> Academic Tutor • <b>PSYC30013:</b> Research Methods for Human Inquiry (Semester 1 2024)	Melbourne, Australia 2024
<b>University of Toronto</b> Guest Speaker • <b>Title:</b> Quantifying Biases in Library Classification Systems • <b>Course:</b> Data, Computation, and The Mind (COG260).	Toronto, Canada November 2022
<b>University of Toronto</b> Teaching Assistant • <b>CSC199:</b> Intelligence, Artificial and Human (Fall Term 2022) • <b>CSC2611:</b> Computational Models of Semantic Change (Fall Term 2022) • <b>CSC110:</b> Foundations of Computer Science (Fall Term 2021)	Toronto, Canada 2021-2022
<b>Queen's University</b> Teaching Assistant • <b>CISC352:</b> Artificial Intelligence (Winter Term 2021) • <b>COGS201:</b> Cognition and Computation (Fall Term 2019; 2020) • <b>COGS100:</b> Introduction to Cognitive Science (Summer Term 2019; Winter Term 2020) • <b>CISC121:</b> Introduction to Computer Science (Fall Term 2018)	Kingston, Canada 2018-2021

Awards \_\_\_\_\_

2023- 2026	<b>Melbourne Research Scholarship</b> , University of Melbourne
2021	<b>Medal in Computing</b> , Queen's University
2020	<b>NSERC Undergraduate Student Research Award</b> , Queen's University
2018-2021	<b>Dean's Honour List</b> , Queen's University
2018	<b>Queen's Appeal Undergraduate Scholarship</b> , Queen's University
2017	<b>Principal's Scholarship</b> , Queen's University

Outreach & Professional Development \_\_\_\_\_

PEER REVIEW  
Annual Meeting of the Cognitive Science Society

2024 - 2025	<b>Graduate Researchers in Psychological Sciences (GRiPS)</b> , President	University of Melbourne
2023	<b>Science Rendevous UofT</b> , Volunteer	University of Toronto
2019 - 2020	<b>Computing Students Association</b> , Governance & Internal Affairs Director	Queen's University

ASSOCIATION MEMBERSHIPS  
Cognitive Science Society

## Skills

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**Programming Languages:** Python, Javascript, R, MATLAB, Prolog, Java.

**Other:**  $\text{\LaTeX}$ , HTML/CSS, SQL, and Markdown.