

# Katie Warburton

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## Education

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### 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: 4.2/4.3
- 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

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### 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 structural biases in hierarchical category systems
- Currently combining computational and experimental methods to explore order effects in 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
- Received an NSERC Undergraduate Student Research Award to work on this project over the summer.

### 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

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**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

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**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

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### University of Melbourne

Academic Tutor

Melbourne, Australia

2024-Present

- **PSYC30013:** Research Methods for Human Inquiry (Semester 1 2024)

### University of Toronto

Guest Speaker

Toronto, Canada

November 2022

- **Title:** Quantifying Biases in Library Classification Systems
- **Course:** Data, Computation, and The Mind (COG260).

### University of Toronto

Teaching Assistant

Toronto, Canada

2021-2022

- **CSC199:** Intelligence, Artificial and Human (Fall Term 2022)
- **CSC2611:** Computational Models of Semantic Change (Fall Term 2022)
- **CSC110:** Foundations of Computer Science (Fall Term 2021)

### Queen's University

Teaching Assistant

Kingston, Canada

2018-2021

- **CISC352:** Artificial Intelligence (Winter Term 2021)
- **COGS201:** Cognition and Computation (Fall Term 2019; 2020)
- **COGS100:** Introduction to Cognitive Science (Summer Term 2019; Winter Term 2020)
- **CISC121:** Introduction to Computer Science (Fall Term 2018)

## Awards

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2021 **Medal in Computing**, Queen's University

2020 **NSERC Undergraduate Student Research Award**, Queen's University

2018-2021 **Dean's Honour List**, Queen's University

## Service & Outreach

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2024 - 2025 **Graduate Researchers in Psychological Sciences (GRiPS)**, President

University of Melbourne

2023 **Science Rendezvous UofT**, Volunteer

University of Toronto

2019 - 2020 **Computing Students Association**, Governance & Internal Affairs Director

Queen's University

## Skills

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

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