

# 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

- Graduated with Distinction
- GPA: 4.2/4.3

## 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

### 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.

## Teaching Experience

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### University of Melbourne

Melbourne, Australia

Academic Tutor

2024-Present

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

## University of Toronto

Toronto, Canada

Teaching Assistant

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

Kingston, Canada

Teaching Assistant

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, MATLAB, R, Prolog, Java, and SQL.

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