

# Kesong Cao (he/him/his)

## Curriculum Vitae

August 2022

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## Education

2017-2020	<b>B.A. (Hons)</b>	Computer Sciences, Economics	University of Wisconsin-Madison
2021-2026 (Expected)	<b>Ph.D.</b>	Cognitive Psychology (Advisor: Joseph L. Austerweil)	University of Wisconsin-Madison

## Positions held

2018-	<b>Research Assistant</b> , Austerweil Lab, Department of Psychology, University of Wisconsin-Madison
2018-2021	<b>Software Developer</b> , Division of Information Technology (DoIT), University of Wisconsin-Madison
2020	<b>Teaching Assistant</b> , Department of Computer Sciences, University of Wisconsin-Madison
2021-2022	<b>Teaching Assistant</b> , Department of Psychology, University of Wisconsin-Madison

## Skills

Programming Languages:	Python, R, JavaScript, SQL, Java, C/C++, Julia, Haskell, MATLAB
Frameworks and Platforms:	PyTorch (Hugging Face), PyMC3, OpenAI gym (RL), Mesa (agent-based modeling), jsPsych, PsychoPy, Keras, Angular, React, Spring Boot, Figma
Productivity:	Git, Linux, $\text{\LaTeX}$
Natural Languages:	English, Chinese (Mandarin, Cantonese), Japanese

## Objective

Early career researcher interested in human cognition and behavior, especially in categorization – one of the most fundamental cognitive abilities. Broadly interested in language, visual perception, decision-making, learning, and machine learning fields such as natural language processing, computer vision, and reinforcement learning. Equipped with strong statistical, data analytical, programming, and communication (written and verbal) skills. Aim to conduct research full-time while also perform mentoring and/or teaching after the graduate training.

## Publications

### Published Peer-Reviewed Journal Articles

1. Zemla, J. C., **Cao, K.**, Mueller, K. D., & Austerweil, J. L. (2020). SNAFU: The Semantic Network and Fluency Utility. *Behavior Research Methods*, 1–19.

### Peer-Reviewed Book Chapters

1. Austerweil, J. L., Pilgrim, C., & **Cao, K.** (in press). Burstier events: Analysing human memory over a century of events using the new york times. *Oxford handbook of behavioral data analysis*. <https://psyarxiv.com/yt2bn>

## Presentations

### Abstract-based conference presentations

How does modern life affect memory retrieval: Analyzing news headlines	20min, 53rd Annual Meeting of the Society for Mathematical Psychology	July 2020
What affects second language learning?	3min, Three Minute Thesis, 2021 UW-Madison Semi-final Competition	November 2021
Hugging Face: NLP and more	4min, UW-Madison Data Science Research Bazaar - Lightning Talks	February 2022

**Invited talks at workshops or informal settings**

Advice on pursuing graduate studies in psychology	1h, Panel speaker, Chinese Psychologos (undergraduate student organization)	November 2021
Modeling Collaboration in Coding Projects	15min, Student attendee, Graduate Workshop in Computational Social Science, Santa Fe Institute	July 2022
Collaboration Insights in Coding Projects for HMT	10min, Trainee, Speculative Human-machine Teaming Workshop, Carnegie Mellon University	July 2022

**Teaching and Mentoring****Courses taught as TA**

COMP SCI 537: Introduction to Operating Systems	Instructor: Shivaram Venkataraman	Spring 2020
PSYCH 202: Introduction To Psychology	Instructor: Jeffrey Henriques	Fall 2021
PSYCH 202: Introduction To Psychology	Instructor: Rebecca Addington	Spring 2022

**Lectures and workshop sections taught as instructor**

Intro to Deep Learning with Keras: Advanced layer types	half-day, data science @ uw-madison	Spring 2022
REU Data Carpentry: Intro to R and dplyr	half-day, data science @ uw-madison	Summer 2022

**Mentees**

Uday Malhotra	undergraduate researcher	Fall 2021 -
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**Service****Department/University**

Web/Graphic Designer and Member	Departmental Colloquium Series Committee	Fall 2021 -
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**Professional**

Volunteer Reviewer	44th Annual Meeting of the Cognitive Science Society (CogSci)	Spring 2022
Volunteer Instructor and Helper	data science @ uw-madison	Spring 2022 -

**Community**

Member	TAA – Graduate Worker Union of UW-Madison	Fall 2021 -
Translator	xkcd Comics, English to Chinese at xkcd.in	Fall 2021 -
Advisor/Member	Chinese Psychologos (undergraduate student organization)	Fall 2021 - Spring 2022

**Other activities**

Mentee/Attendee	Annual Meeting of the Cognitive Science Society (CogSci)	Summer 2021, 2022
Participant	IC2S2 datathon: Computational Social Science for Pandemic-Related Social Good, University of Chicago	Summer 2022
Participant	Human-Guided System Adaptation (HSA) hackathon: Hybrid Team Mega-Tetris, Columbia University	Summer 2022
Student	European Summer School in Logic, Language, and Information, NUI Galway	Summer 2022