Ellis Cain

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https://ellisc.dev

EDUCATION

University of California - Merced, Merced, CA

PhD in Cognitive and Information Sciences; projected graduation May 2026

Indiana University, Bloomington, IN

B.S. in Cognitive Science with Highest Distinction; graduated May 2021

B.A. in East Asian Languages and Culture with Highest Distinction; graduated May 2021

Honors: Phi Beta Kappa

GPA: 3.974

Zionsville Community High School, Zionsville, IN

Magna cum laude, Core 40 Honors diploma; graduated May 2017

RESEARCH EXPERIENCE

Graduate Student, *Language, Interaction, and Cognition Lab*, Merced, CA; August 2021–Present
* Exploring language development over the lifespan of an individual, semantic representation, and neural activity during language task performance.

Research Intern, *Developmental Intelligence Lab*, Austin, TX; May 2021–August 2021
* Extension of previous work in cross-situational learning and contextual diversity, conducted an analysis of a parent-child toy play video corpus exploring the patterns in temporal continuity and contextual diversity and their effect on attention.

Research Assistant, *Developmental Intelligence Lab*, Austin, TX; May 2020–August 2021
* Extended previous Human Simulation Paradigm project by exploring how linguistic, statistical, and visual information is integrated during learning, programmed online experiments using JsPsych, worked with Computer Vision action recognition language models, and designed experiments to quantify the informativeness of naming moments.

Research Assistant, *Computational Cognition and Learning Lab*, Bloomington, IN; May 2019–May 2020
* Semantic analysis (GloVe, WordNet, and human similarity judgements) and verb onset coding for Human Simulation Paradigm project, image coding for neural network object recognition, data analysis, data infrastructure, contributed to the Yu-Crandall joint Computer Vision meetings.

Research Assistant, *Cognitive Development Lab,* Bloomington, IN; Summer 2020
* Adapting a Eulerian magnification algorithm to detect heartbeats from previously recorded videos of infant eyes during an eye-tracking experiment.

SELECTED PAPERS AND PRESENTATIONS

Conference Proceedings:

Paper: Zhang, Y., Amatuni, A., Cain, E., Wang, X., Crandall, D., & Yu, C. (2021). Human Learners Integrate Visual and Linguistic Information Cross-Situational Verb Learning. In Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 43, No. 43).

Paper: Zhang, Y., Amatuni, A., Cain, E., & Yu, C. (2020). Seeking Meaning: Examining a Cross-situational Solution to Learn Action Verbs Using Human Simulation Paradigm. In Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 42, No. 42).

Class research papers:

Paper: Cain, E. (2020). Authorship Verification in Classical Chinese Texts, *Computational Linguistics L445*, Indiana University, Bloomington, Indiana

Paper: Cain, E. (2020). 鄭子曰：欲查其人，先鑑其文；用現代自然語言處理算法鑑定古文的作者 (Master Zheng says: if you wish to examine a person, you must first verify their writings; Authorship Verification in Classical Chinese texts), *Chinese C467*, Indiana University, Bloomington, Indiana

Paper: Cain, E. (2020). Cantonese Tones, *Chinese Linguistics C421*, Indiana University, Bloomington, Indiana

Paper: Cain, E. (2019). 人工智能、自然语言处理以及人类 (AI, NLP, and Humanity), *Chinese C457*, Indiana University, Bloomington, Indiana

Paper: Cain, E. (2019). VOT Analysis for Taiwanese, *Phonetics L306*, Indiana University, Bloomington, Indiana

Presentations:

Presentation: Cain, E. (2020). 鄭子曰：欲查其人，先鑑其文；用現代自然語言處理算法鑑定古文的作者 (Master Zheng says: if you wish to examine a person, you must first verify their writings; Authorship Verification in Classical Chinese texts), *Chinese Flagship Program Conference*, Indiana University, Bloomington, Indiana

Presentation: Cain, E. (2019). 人工智能、自然语言处理以及人类 (AI, NLP, and Humanity), *IU Nanjing Colloquium*, Indiana University, Bloomington, Indiana

Interpretation: Cao, B. (2019). 萨缪尔·贝克特汉译的历程 (The Chinese Translation of S. Beckett: A Critical History), *Chinese Flagship program Chinese Tidings*, Indiana University, Bloomington, Indiana

HONORS, AWARDS, AND SCHOLARSHIPS

Phi Beta Kappa; Bloomington, IN; Fall 2020

IU Senior Awards Nominee; Bloomington, IN; Fall 2020

Provost's Scholarship, Indiana University; Bloomington, IN; Fall 2017–Spring 2021

IU Arts and Sciences Indiana Scholars Scholarship, Indiana University; Bloomington, IN; Fall 2018–Spring 2021

Hutton International Experience Program Grant, Indiana University; Summer 2018

Simon S. Goe Scholarship, Indiana University; Summer 2018

IU Founders Scholar, Indiana University; Bloomington, IN; Fall 2017–Spring 2021

Executive Dean's List, Indiana University; Bloomington, IN; Fall 2017–Spring 2021

TEACHING, SERVICE, AND LEADERSHIP

Teaching Assistant, COGS 1, UC Merced, Merced, CA; August 2021–December 2021

Director, Cru @ IU, Bloomington, Indiana; January 2020–December 2020

Student leader, Cru @ IU, Bloomington, Indiana; August 2018–May 2021

Chinese Flagship Program Assistant, Chinese Flagship Movie Discussion group, Bloomington, Indiana; May 2020–December 2020

Member, Student Organization for Cognitive Science, Bloomington, Indiana; August 2017–May 2021