

# Ellis Cain

<https://ellisc.dev>

## EDUCATION

**Indiana University**, Bloomington, IN

B.S. in Cognitive Science (projected for May 2021)

B.A. in East Asian Languages and Culture (Mandarin Chinese)

GPA: 3.967

**Zionsville Community High School**, Zionsville, Indiana

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

## RESEARCH EXPERIENCE

**Lab Research Assistant**, Developmental Intelligence and Learning Lab, Austin, Texas; May 1, 2020–

Present

\* Programming, semantic analysis (GloVe, WordNet, and human similarity judgements), experimental design, and verb onset coding for Human Simulation Paradigm project, data analysis using Python and R, data infrastructure and storage, contributed in Computer Vision meetings and worked on developing a model to recognize action verbs from visual information.

**Lab Research Assistant**, Computational Cognition and Language Learning Lab, Bloomington, Indiana; May 10, 2019–May 1, 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 in the Computer Vision meetings.

**Lab Research Assistant**, Cognitive Development Lab, Bloomington, Indiana; 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., Yu, C. (2020). Seeking Meaning: Examining a Cross-situational Solution to Learn Action Verbs Using Human Simulation Paradigm. In S. Denison., M. Mack, Y. Xu, & B.C. Armstrong (Eds.), Proceedings of the 42<sup>nd</sup> Annual Conference of the Cognitive Science Society (pp. 2854-2860). Cognitive Science Society.

### Class research papers:

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

## **Presentations:**

**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

**Translation:** 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

## **INTERNATIONAL EXPERIENCE**

**Study abroad**, Princeton in Beijing, Beijing, China; June 21–August 18, 2018

- \* All drill and lecture classes and daily one-on-one tutorial sessions conducted entirely in Chinese
- \* Lived on the Beijing Normal University campus in the international student dorms
- \* Activities: traveled to nearby tourist attractions in Chengde and Datong; had weekly “Chinese Tables” where we visited local restaurants with a teacher; studied clappertrap (快板) and performed crosstalk (相声) for the final individual performance
- \* Skills developed: Advanced Chinese language skills in a variety of professional contexts; extemporaneous speech skills; law and public policy debate skills

**Study abroad**, Indiana University Honors Program for Foreign Language, Hangzhou, China; June 9–July 15, 2015

- \* All classes conducted entirely in Chinese (grammar, conversation, culture, traditional literature)
- \* Housing with a Chinese host family in their apartment
- \* Activities: visited local attractions like West Lake, West Stream, Leifeng Pagoda, Alibaba Headquarters; field trips to Shanghai and Beijing
- \* Skills developed: Relatively advanced Chinese language skills in a variety of contexts and circumlocution; cross-cultural communication skills; interpreting formal/written language

## **SERVICE AND LEADERSHIP**

**Director**, Cru @ IU, Bloomington, Indiana; January 2020–Present

**Student leader**, Cru @ IU, Bloomington, Indiana; August 2018–Present

**Student leader**, Chinese Flagship Movie Discussion group, Bloomington, Indiana; May 2020–Present

**Member**, Chinese Calligraphy Club, Bloomington, Indiana; August 2017–Present

**Member**, Student Organization for Cognitive Science, Bloomington, Indiana; August 2017–Present

## **HONORS, AWARDS, AND SCHOLARSHIPS**

Provost’s Scholarship, Indiana University; Bloomington, Indiana; Fall 2017–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, Indiana; Fall 2017–Spring 2020

Executive Dean’s List, Indiana University; Bloomington, Indiana; Fall 2017–Spring 2020

## **SKILLS**

**Languages:** English: native. Chinese: speaking and reading with varying amount of proficiency, ACTFL Advanced high (OPIc, TOCFL)

**Programming Languages:** Python, R, HTML, MatLab, Java

**Software:** Praat, BlueJ, Microsoft Word, Microsoft Excel, Audacity, Adobe Photoshop, Adobe Illustrator