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)

Honors: Phi Beta Kappa

GPA: 3.967

Zionsville Community High School, Zionsville, Indiana

Magna cum laude, Core 40 Honors diploma; 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 42nd 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. (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, Indiana; Fall 2020

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

IU Arts and Sciences Indiana Scholars Scholarship, Indiana University; Bloomington, Indiana; 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, Indiana; Fall 2017–Spring 2020

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

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

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, NetLogo

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