

# Zachary Crenshaw

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## EDUCATION

### UNIVERSITY OF CHICAGO

B.A.

#### Linguistics & Computer Science

GPA: 3.9 / 4.0

Expected June 2021

## PROFILE

### Seeking internship for Summer 2020

I strive to combine my expertise in computer science, my knowledge of linguistics, and my passion for education to create software that improves users' quality of life.

My primary interests include:

- Education Technology
- NLP + NLG
- Accessibility Technology

## SKILLS & INTERESTS

### PROGRAMMING

Proficient:

Python • Java • Javascript • C

Familiar:

HTML • CSS •  $\text{\LaTeX}$  • PostgreSQL

### LANGUAGES

Proficient:

Spanish

Beginner:

American Sign Language • Catalan

### INTERESTS

A Cappella • Constructed Languages  
Learning Languages

## COURSEWORK

### COMPUTER SCIENCE

NLP + Machine Learning

Universal Design

DMBS

Data Structures + Graph Theory

Architecture + Memory Management

Education Theory + Game Design

### LINGUISTICS

Phonetics + Phonology

Acoustic Phonetics

Syntax

Semantics + Pragmatics

Simply Typed Lambda Calculus

Sign Language Linguistics

## PROJECTS

### ONLINE INFLUENCERS NOT SO INFLUENTIAL AFTER ALL

June 2019 - Present

- Investigate slang use on Reddit, using Python scripts to scrape, analyze, and visualize data to determine what types of users more effectively popularize slang in online forums
- NOTE: Project in development. Proposal and project code available at [github.com/zcrenshaw/SlangTransmission](https://github.com/zcrenshaw/SlangTransmission)

### TO SPACE AND BACK: A FRACTION LEARNING GAME

Oct 2018 - Dec 2018

- Utilized pair programming techniques and Common Core Curriculum guidelines to develop an educational game for 3rd-5th graders
- Combined Universal Design concepts with education theory and crucial elements of game design to create a customizable, accessible, and grade-appropriate educational gaming experience
- Links: [Java code](#), [a slide presentation](#), and [full design write-up](#)

## RESEARCH

### SIGN LANGUAGE LINGUISTICS LAB | Research Assistant

Feb 2018 - Present | Chicago, IL

- Developed data cleaning methods for the next stage of the **Lexicon-Free Fingerspelling Recognition from Video** project to improve machine learning training set
- Annotated fingerspelling data in ELAN, edited other annotators' work to ensure quality training data, designed and implemented system to track edits
- Future projects: annotating British Sign Language dictionary tokens for location to provide tagged data for future researchers

### UCHICAGO CANON LAB | Research Assistant

April 2019 - June 2019 | Chicago, IL

- Created Javascript and Python scripts to analyze common student mistakes and grading script errors to improve future iterations of a **Scratch-based CS curriculum** for 4th-6th graders

## EXPERIENCE

### JOHNS HOPKINS Center for Talented Youth | Teaching Assistant

June 2019 - August 2019 | Baltimore, MD ; Lancaster, PA

- Co-taught the summer course: **Linguistics: The Science of Language**
- Facilitated evening classes (2 hours in length), contributed to narrative-style student evaluations, and provided instructional support to ensure student engagement and success

### THE FRANKLIN INSTITUTE | Discovery Camp Counselor

July 2017 - Sept 2018 (Seasonal) | Philadelphia, PA

- Instructed on STEM topics such as Physics, Chemistry, Biology, and Computer Science to groups of 15+ children aged 4-14
- Directed classroom activities to facilitate interactive STEM learning
- Counselor-In-Training: June 2014 - Sept 2016 (Seasonal)