

# Mathew A. Kramer

RESEARCHER, DATA SCIENTIST & DEVELOPER

✉ mathew@mathewkramer.io | 🏠 mathewkramer.io | 🌐 narquelion | 🐦 @mathewlinguist

## Education

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### University of Michigan

M.A., LINGUISTICS

Ann Arbor, MI

2022

### University of Chicago

B.S., COMPUTER SCIENCE AND B.A., LINGUISTICS

Chicago, IL

2016

## Research Experience

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For a detailed list of presentations and publications, please refer to [my CV](#).

### University of Michigan

GRADUATE STUDENT RESEARCHER

Ann Arbor, MI

2018 – 2022

- Individually and in teams, developed, led, and participated in multi-stage research projects.
- Worked with a wide variety of data, including behavioral data, likert ratings, qualitative responses, and demographic surveys.
- Used RStudio and Pandas to manipulate data, produce visualizations, and run statistical analyses, including Bayesian models.
- Presented summaries of research in written, poster and presentation format to audiences with varying levels of familiarity.
- Published single-author and co-authored papers on a variety of topics.

LAB MEMBER, CONTACT, COGNITION, AND CHANGE LAB

2018 – 2022

- Developed methodology for and ran web-based eye-tracking experiments.
- Visualized and analyzed various datasets, including eye-tracking data, likert scale responses, and demographic data.
- Trained faculty and students in use of web-based experimental pipeline.

### University of Chicago

LAB MANAGER/RESEARCH SPECIALIST

Chicago, IL

2015 – 2018

- Developed and deployed web-based experiments via HTML, CSS, and JavaScript.
- Developed and documented a system for hosting and running web-based experiments, replacing outdated tools.
- Trained students and faculty in the use of these systems.

## Projects

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### LingTube [🔗 https://github.com/Narquelion/LingTube](https://github.com/Narquelion/LingTube)

LEAD DEVELOPER

2019–2022

- Developed an open-source suite of Python tools for downloading and processing YouTube captions for syntactic analysis.
- Trained researchers in using pipeline for their own projects.
- Presented and published results of pipeline-based research in computational and non-computational venues.

### Dependency locality and its correlates in writing and speech [🔗 https://osf.io/nez36/](https://osf.io/nez36/)

PRINCIPAL INVESTIGATOR

2019–2021

- Constructed a dataset of 7 languages using the LingTube pipeline.
- Utilized Python and R to extract and clean relevant data; visualized data and conducted regression analyses via R.

### Getting to know *them*: How familiarity impacts pronoun use [🔗 https://osf.io/3c6kx/](https://osf.io/3c6kx/)

PROJECT MANAGER AND LEAD AUTHOR

2020–present

- Developed set of Qualtrics surveys with experimental and demographic components.
- Ensured best practices for inclusive demographic surveying and participant recruitment.
- Using Python and RStudio, prepared and analyzed quantitative and qualitative data from participants.
- Presented findings and served as lead author on manuscript for publication.

### Moving past indirect proxies for language experience [🔗 https://osf.io/3wys9/](https://osf.io/3wys9/)

PRINCIPLE INVESTIGATOR

2020–2021

- Assisted in conducting and interpreting cluster analysis of self-report data.
- Conducted Bayesian analysis exploring the fit of different data types and aggregation methods to experimental responses.
- Prepared visualizations and detailed methodology for presentation.

## Teaching

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## University of Michigan

Ann Arbor, MI

GRADUATE STUDENT INSTRUCTOR, LANGUAGE AND DISCRIMINATION

2021 – 2022

- Planned and led hour-long weekly discussions on the relationship between societal attitudes and language.
- Engaged students from diverse backgrounds in thinking about how their own language use is shaped by and shapes society.
- Presented up-to-date research, including own research, to students from non-linguistic disciplines.

## University of Michigan

Ann Arbor, MI

GRADUATE STUDENT INSTRUCTOR, LANGUAGE AND HUMAN MIND

Fall 2021

- Planned and led hour-long weekly discussions on scientific philosophy and basic linguistic theory.
- Guided students from a variety of disciplines in applying linguistic insights to their own interests and fields of study.

## Japanese-Language Experience

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NOTE: Library positions required advanced reading and writing knowledge of Japanese.

### Japanese Collection, Joseph Regenstein Library

Chicago, IL

COPY-CATALOGUING ASSISTANT

Jan. 2017 – Jun. 2017

- Worked independently to import, verify, and update records for new Japanese-language acquisitions.
- Improved library catalogue by identifying and amending outdated, incorrect, or incomplete records.

ACQUISITIONS ASSISTANT

Aug. 2015 – Aug. 2016

- Worked efficiently to eliminate backlog of Japanese-language acquisitions in need of pre-processing.
- Flagged incorrect records, duplicate items, and discrepancies in invoices.

### Freelance Language Tutor

Various locations

- Developed curricula for independent students of Japanese, primarily at the introductory level.
- Made use of linguistic training to improve the success of students at various levels in their Japanese coursework.

## Skills

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**Languages** R, Python, Javascript, HTML, CSS, MySQL

**Tools** RStudio, Pandas, Git/GitHub