

# MIA TEIXEIRA (she/they)

I am a computational linguist with 8 years of experience in experimental, theoretical, and corpus linguistics working with linguistics, computer science, and physics teams. My expertise and passion lies at the intersection of formal language theory, parsing and designing formal grammars, machine learning, developing methods for interpretability of neural features, and data science. I am seeking a position in a collaborative and engaging environment where I can apply my knowledge of linguistic theory to improve engineering approaches to Natural Language.

## EXPERIENCE

### Researcher

UCLA Linguistics, *Sept 2018 – Present*

- Created and maintained a department-internal database with the Corpus of Contemporary American English (COCA). Distributional frequency, word-word co-occurrence matrices, and sentiment analysis were utilized for cross-domain comparison of the semantics of the word “cancer”.
- Achieved milestones for large projects (Master’s thesis, grant applications) on time while working under multiple simultaneous timelines.
- Collected 50+ hours of speech in 3 languages from 6 speakers through experimental and fieldwork tasks of my own design, extracted relevant acoustic measures (duration, VOT, formant values, etc.), and annotated intonation contours (ToBI) for various research projects.
- Distilled key takeaways from research for presentations to specialized (professional linguists) and non-specialized (linguistics undergrads) audiences.
- Collected 60+ tokens of lingual ultrasound of Dschang (Grassfields Bantu language) speech, and performed data analysis on tongue contour height in contrasting phonemes.
- Recruited five Tsotsil (Mayan) speakers as fieldwork consultants in Chiapas, Mexico through community contacts and word-of-mouth, and held elicitation sessions with each on a weekly or monthly basis for three months.

### Linguistics Instructor

UCLA Linguistics & MIT CSAIL, *Feb 2018 – Present*

- Created, maintained, and ran grading scripts written with the Haskell QuickCheck library for three different final projects ranging from Context-Free Grammar (CFG) parsing to Part-of-Speech (POS) tagging and Finite-State Automata (FSA) design and parsing for a UCLA undergraduate course.
- Collaborated on designing engaging Computational Linguistics projects for 100+ MIT undergraduates involving the design of CFGs and FSAs as well as designing new and traversing existing semantic ontologies.
- Designed, created content for, and ran a Semantics course for 50+ UCLA undergraduates.
- Assisted 7 UCLA Linguistics faculty in course material design, assessment, and running class sections outside of lecture for 750+ UCLA undergraduate students for courses covering Introductory Linguistics, Computational Linguistics, and Semantics.
- Presented two guest lectures to 40+ UCLA undergraduate students in one of the aforementioned Computational Linguistics courses.

### Research Assistant

MIT & CERN, *Jan 2015 – June 2018*

- Utilized Tregex/Tsurgeon to identify and correct grammatical errors via transformational grammars in automatically generated credit reports.
- Collated example sentences from Syntax textbooks and published papers. Utilized this dataset as a benchmark for Google’s Parsey McParseface to identify syntactic constructions the parser was unable to properly analyze.
- Maintained modules that identified particular events out of raw collision data from the Compact Muon Solenoid (CMS) detector at CERN. Collaborated with researchers and graduate students across various timezones to analyze the data and write up the results.

### Graduate Student-Faculty Liaison

UCLA Linguistics, *Oct 2021 – Present*

- Served as one of the founding members on the Climate Committee along with various UCLA faculty to collaborate on creative short- and long-term solutions to concerns raised in a department-wide climate survey.

## CONTACT

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## EDUCATION

M.A. Linguistics  
UCLA – 2020

B.S. Physics, Linguistics Minor  
MIT – 2018

## WORK PROFICIENCIES

Machine learning  
Data visualization (matplotlib)  
CFG parsing/design  
Automata Theory  
Formal Language Theory  
Plain-language presentations  
Distributional semantics  
Bayesian methods  
Corpus linguistics

## SKILL PROFICIENCY

|            |       |
|------------|-------|
| Python     | ●●●●○ |
| C++        | ●●●○○ |
| Haskell    | ●●●●● |
| UNIX/Linux | ●●●●○ |
| Git        | ●●●○○ |
| LaTeX      | ●●●●● |
| SQL        | ●●○○○ |
| Praat      | ●●●○○ |

## LANGUAGE PROFICIENCY

|         |       |
|---------|-------|
| English | ●●●●● |
| Spanish | ●●●●● |

## STRENGTHS

Collaborative worker  
Adept communicator  
Self-directed learner  
Highly curious