# Elizabeth Lee

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### Contact/Personal

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#### **Education**

# University of Rochester, Rochester, NY | 2017 - 2019

Master of Science in Computational Linguistics

Thesis: "Towards an Improved Lexicon of Relational Nouns"

Coursework: Natural Language Processing, Intro to Computational Linguistics, Machine Learning, Data Science for Linguistics, Logical Foundations of AI, Tools for Language Documentation, Intro to Semantic Analysis, Formal Semantics

### University of Florida, Gainesville, FL | 2012 - 2016

Bachelor of Arts in Linguistics, Magna Cum Laude

Thesis: "The Effects of Segmentation on the Processing of Binomial Expressions"

Minor in East Asian Languages and Literatures: Japanese

Relevant coursework: Applications of Discrete Structures, Programming for CIS Majors 1,

Programming Fundamentals II, Second Language Acquisition, Psycholinguistics

### **Interests**

Natural language processing, software engineering, UX design, artificial intelligence, semantics, second-language acquisition

# **Work Experience**

### Research Engineer I, USC Information Sciences Institute | 2019 -

- Worked with a team to build a web application for schema curation using the Angular framework
- Wrote scripts to convert system output data between different formats (including XML, JSON, internal formats from RDF)
- Containerized software via Docker and assembled those components into scientific workflows
- Used Git for version control and CI
- Built a demo application using the Dash framework to display system output with interactive components
- · Collaborated on and used third-party tools to build semantic extraction systems
- Developed web tools for annotation using Flask, Vue.js, and SQL
- Wrote and edited scripts in Python, Kotlin, and Bash to extract and process annotation data
- Hired, trained, and managed linguistic annotators

## Linguistics Graduate Research Assistant, Quantitative Semantics Lab at UR | 2018 - 2019

- Wrote and edited scripts primarily in Python to process large amounts of corpus data
- Collaborated with students in linguistics and computer science
- Used results of error analyses to find and fix issues in code and increased accuracy of generated data
- Implemented third-party code to add new features to datasets

# Computer Science Graduate Research Assistant, TRIPS Lab at UR | Spring 2019

 Assisted with NLP research by investigating experimental designs and results of projects regarding automated question generation

### Teaching Assistant for Intro to Semantic Analysis, University of Rochester | Fall 2018

- Helped students better understand the course and the material through electronic correspondence or one-on-one meetings
- Gave lectures when professor was away
- Graded course assignments

### Laboratory Assistant, National High Magnetic Field Laboratory at FSU | Summer 2012, 2013

- Prepared samples for microanalysis (polishing, ion milling, other miscellaneous tasks)
- Stitched together photos taken via microscope
- Created slideshow presentations to present research findings

# **Computer Skills**

## **Programming/Coding**

- Coded several small projects for coursework or personal use in C++, Java, Lisp, and Python
- Practiced Haskell, MATLAB, MIPS, R, Ruby, and SQL through coursework or self-study
- Created personal website from scratch with HTML, CSS, and JavaScript (elizlee.github.io)
- Wrote simple Android apps in Kotlin

#### Software/Misc.

- Annotated and documented natural language data (Praat, ELAN, FLEx)
- Used game engines to create simple games (RPG Maker, RenPy)
- Created and edited videos (WMM, YouTube, Instagram)
- Edited audio files (Audacity, Melodyne)
- Modeled virtual 3D objects (AutoCAD, SolidWorks, SketchUp)
- Edited images and created digital art (Adobe Photoshop, PhotoScape, Krita, Paint.NET)

#### Involvement

### Undergraduate Research Assistant, Brain and Language Lab at UF | 2015 - 2016

- Researched and gathered materials for linguistics experiments
- Edited scripts in Python and R such that they were appropriate for use in different projects
- Ran a psycholinguistics experiment as the basis for an undergraduate thesis which was awarded with high honors
  - Gathered materials through COCA (Corpus of Contemporary American English)
  - Scheduled appointments with participants
  - Recorded and analyzed data using Microsoft Office, E-Prime, and RStudio

## UF Computational Linguistics Club | 2015—2016

• Learned how to use Python's NLP Toolkit (NLTK)

# Japanese Club at UF | 2012—2016

- Treasurer | 2015 2016
  - Kept track of club's budget and efficiently used funds
  - o Organized the Spring Festival Fashion Show
- Creative Director | 2014 2015
  - Taught students how to make Japanese-themed crafts
  - o Obtained and created decorations for club events
- Co-Dance Team Coordinator | 2013 -2014
  - Choreographed and taught Japanese dances for performances

### Kakehashi Project (promoted by Japan's Ministry of Foreign Affairs) | December 2015

- Selected to participate in a youth exchange program from a pool of applicants
- Visited several locations in Japan, interacted with Japanese university students, and participated in homestay
- Prepared slideshows for our school's presentations

## **Projects**

# "Positive anymore" project for Data Science for Linguistics (Spring 2018)

- Worked with a team of three on a project regarding the use of positive anymore across geographic regions
- Extracted instances of positive anymore by web scraping form geographically associated

# "A Study of Modern Spoken Tamil" for Tools for Language Documentation (Fall 2017)

- Teamed up with two classmates and a native speaker of Tamil on a semester-long language documentation project
- Transcribed and annotated language data using Praat, ELAN, and FLEx

## "Class Escape" for Programming Fundamentals II (Fall 2014)

- Collaborated with a team of five to create simple video game in C++
- Compromised on development plans through the course of several in-person and Skype meetings
- Introduced the team to SFML and ultimately used it in the game's development

#### **Publications**

Kametani, F., Lee, E. G., Shen, T., Lee, P. J., Jiang, J., Hellstrom, E. E., and Larbalestier, D. C. "An Explanation of How Split Melt Processing Can Enhance the Critical Current Density of Bi2212 Round Wires Based on Examination of Bubble Size and Density Formed in the Melt" Superconductor Science and Technology 27, no. 5 (2014): 055004.

# **Foreign Languages**

# **Japanese**

- Studied Japanese for six semesters
- Member of the Japanese National Honor Society College Chapter (2016)
- Intermediate-level reading and speaking ability

# **Mandarin Chinese**

- Studied Chinese for two semesters
- Elementary-level reading and speaking ability