

Madelyn Scandlen

mscandlen3@gatech.edu

+1 830-446-2323

[linkedin.com/in/madelyn-scandlen](https://www.linkedin.com/in/madelyn-scandlen)

<https://mscandlen.github.io/mscandlen/>

EDUCATION

Master of Science, Computer Science

Expected Graduation: December 2023

Georgia Institute of Technology – *Atlanta, GA*

- Machine Learning specialization

Bachelor of Science, Computer Science

August 2018 - May 2022

Georgia Institute of Technology – *Atlanta, GA*

- Intelligence & People concentrations, Linguistics Minor
- GPA: 3.71 – Highest Honors

RESEARCH EXPERIENCE

Research Assistant

August 2020 – December 2021

Linguistics Department, Georgia Institute of Technology

Language & Politics in the New South

- Collect sociolinguistic interviews from native Georgia residents.
- Transcribe participants' speech using PRAAT and measure vowel space using DARLA.
- Generate Python and R programs to analyze the relationships between political ideology and "Southern vowels".

Research Assistant

February 2020 – August 2021

DILAC, Georgia Institute of Technology

NLP Analysis on the Works of Ralph Waldo Emerson

- Perform Entity Extraction on collected works of Ralph Waldo Emerson with SpaCy and NeuralCoref libraries.
- Use SparQL queries on WikiData entities to validate correct entities.
- Build a Knowledge Graph of Emerson's frequently mentioned entities for analysis.

WORK EXPERIENCE

Software Development Intern (Internship)

May – July 2020

State Farm Insurance – *Phoenix, AZ*

- Joined the XR team to implement a Virtual Reality simulation.
- Implemented a mobile application in the VR simulation using C# for backend and the Unity IDE for UI designs.

TEACHING EXPERIENCE

Graduate Teaching Assistant – CS 4510, Automata & Complexity

August 2022 – May 2023

Georgia Institute of Technology – *Atlanta, GA*

Teaching Assistant – CS 1331, Object Oriented Programming

January 2019 – December 2021

Georgia Institute of Technology – *Atlanta, GA*

PRESENTATIONS

- Scandlen, M., Lelia Glass & Jon Forrest. 2021. Perceiving Southernness and Political Ideology in Speech. *Linguistics Conference at the University of Georgia*.
- Liotta, M. & Madelyn Scandlen. 2021. Language and Politics in the New South. *Georgia Tech Undergraduate Research Symposium*.

RELEVANT PROJECTS

Generating Adversarial Fake Reviews **September 2022 – Present**

- Create a Generative Adversarial Network to generate fake domain-specific Yelp reviews with a character-level RNN while using a CNN discriminator to assess user style with the purpose of contributing to the development of improved detection models.

Disfluencies on Reddit **May 2022**

- Investigated gender differences in the use of *um* and *uh* on social media to propose a new pragmatic sense of typed disfluent speech.

Language Acquisition on Reddit **October – December 2021**

- Categorized users of language learning subreddits (r/learnSpanish, r/Spanish) by self-disclosed motivation to understand the trends in activity and success.

Gendered Differences in Overlapping Speech **May 2021**

- Record and annotate 1-hour conversation between 4 speakers (2 male, 2 female) to evaluate the stratification of collaborative and competitive overlaps between speakers.

HONORS & AWARDS

- President's Undergraduate Research Award **Summer 2021**
Highest Honors **Fall 2018 – Spring 2022**

INVOLVEMENTS

- North American Summer School for Language, Logic, and Information (NASSLLI) 2022 at University of Southern California
- European Summer School for Language, Logic, and Information (ESSLLI) 2021 held virtually
- Oxford Study Abroad program in 2019

SKILLS

Computer: Java, Python, C#, R, LaTeX, Git, Unity
Language: conversational Spanish