

# Madelyn Scandlen

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

## EDUCATION

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### 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

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### Research Assistant

**August 2020 – December 2021**

*Linguistics Department, Georgia Institute of Technology*

Language & Politics in the New South

- Collected sociolinguistic interviews from native Georgia residents.
- Transcribed participants' speech using PRAAT and measure vowel space using DARLA.
- Generated 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

- Performed Entity Extraction on collected works of Ralph Waldo Emerson with SpaCy and NeuralCoref libraries and validated entries using SparQL queries on WikiData.
- Built a Knowledge Graph of Emerson's frequently mentioned entities for analysis, visualized using D3.

## WORK EXPERIENCE

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### 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

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### 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

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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

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### 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.

## HONORS & AWARDS

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President's Undergraduate Research Award

**Summer 2021**

Highest Honors

**Fall 2018 – Spring 2022**

## INVOLVEMENTS

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- 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

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*Languages:* Java, Python, R, SQL

*Skills:* Keras/PyTorch/Scikit-learn/NLTK packages for Python, D3, LaTeX, Git, Unity