

# Madelyn Scandlen

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## EDUCATION

### Master of Science, Computer Science

Georgia Institute of Technology – *Atlanta, GA*

- Machine Learning specialization

Expected Graduation: December 2023

### Bachelor of Science, Computer Science – GPA: 3.71

Georgia Institute of Technology – *Atlanta, GA*

- Intelligence & People concentrations, Linguistics Minor

Graduated May 2022

## EXPERIENCE

### Research Assistant (Research)

August 2020 – December 2021

*Linguistics Department, Georgia Institute of Technology – Atlanta, GA*

Language & Politics in the New South (funded by President's Undergraduate Research Award)

- Collected sociolinguistic interviews from native Georgia residents, transcribed interviews using PRAAT, and analyzed speech trends using R and Python.
- Created surveys to elicit ratings of Southernness and political conservatism to analyze trends in perceptions of political ideology for phonetic features, gender, and race from audio recordings.
- Presented at the 7<sup>th</sup> Linguistics Conference at the University of Georgia (LCUGA7) in 2021

### Research Assistant (Research)

February 2021 – August 2021

*DILAC, Georgia Institute of Technology – Atlanta, GA*

NLP Analysis on the Works of Ralph Waldo Emerson

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

### Graduate Teaching Assistant (Teaching)

August 2022 – May 2023

CS 4510, Automata and Complexity – *Georgia Institute of Technology – Atlanta, GA*

- Conducted office hours and assisted students in learning about automata.
- Graded homework and exams and recorded lectures into print outs for students to refer to later.

### 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.

## PROJECTS

### Generating Adversarial Fake Reviews

September 2022 – December 2022

- 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.

### Language Acquisition on Reddit

September – December 2021

- Performed topic modeling to categorize the self-disclosed motivation of users of language learning subreddits (*r/learnSpanish*, *r/Spanish*) and predicted the highest level achieved from the user's motivation and time sequential posts on the subreddit.

## SKILLS

*Programming:* Java, Python, C#, R,

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