

# Madelyn Scandlen

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## EDUCATION

### Master of Science, Computer Science – GPA: 3.61

Expected Graduation: December 2023

Georgia Institute of Technology – *Atlanta, GA*

- Machine Learning specialization

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

Graduated May 2022

Georgia Institute of Technology – *Atlanta, GA*

- Intelligence & People concentrations, Linguistics Minor

## WORK EXPERIENCE

### Data Science Intern

May 2023 – Present

HP Inc. – *Houston, TX*

- Developed machine learning temporal models for change-point and anomaly detection of company products using scikit-learn packages.
- Analyzed big data on PySpark clusters to derive actionable insights and support decision-making processes.
- Fine-tuned and repurposed open-source Large Language Models using AWS JumpStart scaffolding to enhance automation for internal resources.

### Software Development Intern

May 2020 – July 2020

State Farm Insurance – *Phoenix, AZ*

- Applied human-computer interaction guidelines and concepts to create engaging internal applications.
- Implemented a Virtual Reality simulation for employee onboarding, using C# and Unity IDE, resulting in notable improvements in the onboarding process.
- Designed and constructed a mobile application in the VR simulation with seamless user interactions.

## RESEARCH EXPERIENCE

### Research Assistant

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)

- Transcribed sociolinguistic interviews using PRAAT and analyzed speech trends using R and Python.
- Created surveys deployed on Mechanical Turk to elicit ratings of Southernness and political conservatism to analyze trends in perceptions of political ideology for phonetic features.

### Research Assistant

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 and used SparQL queries on WikiData entities to validate correct entities.
- Built a Knowledge Graph of Emerson's frequently mentioned entities for analysis, visualized using D3.

## PROJECTS

### Generating Adversarial Fake Reviews

September 2022 – December 2022

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

## SKILLS

*Programming:* R, SQL, Java, Python, JavaScript, Spark

NumPy, Pandas, Keras, PyTorch, Scikit-learn, NLTK, LangChain, transformers packages

*Tools:* Git, Tableau, AWS platforms