Tess Monks

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[tessmonks.github.io](https://tessmonks.github.io/)

**EDUCATION**

Harvard University, Cambridge, MA May 2022

MA in Linguistics

Master’s Thesis: “Demonstrative Shift and Proximal Markedness”

Relevant Courses:

* Computer Science: Machine Learning, Computational Linguistics & NLP, Data Science
* Linguistics: Semantics, Syntax, Pragmatics, Phonology, Field Methods, Experimental Design
* External Courses: Stanford Machine Learning, NLP with Python for ML, Essential Math for ML in Python

Awards & Honors: Harvard Presidential Scholarship

University of Richmond, Richmond, VA May 2020

BA in Latin, Minors in Linguistics, Economics, and Ancient Greek

Thesis: “Relative Clause Anastrophe in Cato’s *De Agri Cultura*”

Awards & Honors: Phi Beta Kappa, Summa Cum Laude

**PROFESSIONAL EXPERIENCE**

Echobox, London, UK September 20222—Present

*Junior Product Analyst*

* Organize goals within a multidisciplinary team of engineers, product managers, and scientists to develop new products
* Propose and pitch new product ideas to leadership based on data analysis of market trends and state-of-the-art research
* Collect and analyze user data before and after product launches to determine success of new features

Spring Oaks Capital, Remote, USA June 20222—August 2022

*Data Science Intern*

* Predicted debt-recovery outcomes of customer calls using call transcript datasets
* Created class membership labels for language data from call transcripts and SMS datasets using bespoke convolutional neural networks to ease the burden on call center representatives
* Analyzed the semantics over 1,000 unlabeled call and text transcripts for further classification into intent categories using word embeddings and unsupervised clustering

**HIGHLIGHTED RESEARCH EXPERIENCE**

**Harvard University, Department of Linguistics**

***Graduate Researcher for “Demonstrative Shift and Proximal Markedness***” September 2021—Present

* Created an Evolutionary Game Theory Model and Weighted Finite State Transducer to model semantic change as an interaction of sequential modeling and psycholinguistics
* Pioneered approaches to semantic change by using current language data to explain language shift—proving that computational, experimental, and diachronic linguistics can effectively interface

**Harvard University, Department of Linguistics**

***Lead Experimentalist for “Demonstrative Grammaticalization Pathways”*** January 2021—Present

* Designed and implemented linguistic surveys for over 200 participants on Prolific Academic
* Cleaned and manipulated original data for regression modeling and significance testing of semantic effects
* Presented at Formal Diachronic Semantics, Linguistics Society of America, S. New England Workshop in Semantics

**Harvard University, School for Engineering and Applied Sciences**

***Computational Linguist for “***[***Approaches to Semantic Parsing***](https://github.com/tessmonks/Machine-Translation-to-SQL-Query)***”*** December 2021

* Built a semantic parsing system to convert English queries to SQL queries
* Implemented a rule-based approach based on semantically augmented syntactic parse trees
* Developed an end-to-end seq2seq system to convert text to SQL to compare linguistic theory models to transformer models for best semantic encoding of natural language queries

SKills

PROGRAMMING LANGUAGES: Python (PyTorch, NumPy, Scikit-Learn, Pandas), R (tidyverse), SQL

MEMBERSHIP: Harvard Meaning & Modality Lab