TESSA MASIS

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EDUCATION

2020 – 2026 ▷	**University of Massachusetts Amherst** Ph.D. in Computer Science
2018 – 2020 ▷	**University of Massachusetts Amherst** B.A. in Computational Linguistics GPA: 3.94; Dean's List all semesters; Phi Kappa Phi member; Eta Sigma Phi member
2015 – 2017 ▷	**Cornell University** Prospective B.S. in Computer Science Engineering and Linguistics

RESEARCH EXPERIENCE

2020 – · · · · ▷	**Graduate Research Assistant,** University of Massachusetts Amherst. Natural language processing and computational social science research Advisor: Brendan O'Connor
2019 – 2020 ▷	**Undergraduate Research Assistant,** University of Massachusetts Amherst. Linguistic probe task assessing deictic knowledge of pretrained language models Mentors: Carolyn Anderson, Gaja Jarosz
Summer 2019 ▷	**Analytics and Machine Intelligence Intern,** Raytheon BBN Technologies, Cambridge. Trained models predicting word error rate from multilingual raw audio and ASR output

HONORS & AWARDS

2024	▷ Passed Ph.D. Qualifying Exam (Portfolio) with Distinction.
	▷ Community, Democracy, and Dialogue Grant from the UMass Amherst Office of Equity and Inclusion (with Jane Yeahin Pyo, Nora Suren, and Larri Miller).
2023	▷ NSF Graduate Research Fellowship.
	▷ Ford Foundation Predoctoral Fellowship Honorable Mention.
	▷ CRA-Inclusion, Diversity, Equity, Accessibility, and Leadership Skills (IDEALS) Grad Cohort Workshop Participant (fully funded travel & arrangements).
2022	▷ Anuradha and Hanuma Kodavalla Graduate Scholarship in Computer Science.
2020	▷ Scholarship of Undergraduate Literary Studies Conference Travel Award.
2019	▷ Out For Undergrad Tech Conference Participant (fully funded travel & arrangements).
2018	▷ Alexander Rebelo DeSerpa Prize for Excellence in Beginning Greek.
	▷ Out in STEM Annual Conference Travel Award.

PUBLICATIONS & PRESENTATIONS

1   **Tessa Masis** and Brendan O'Connor. "Where on Earth Do Users Say They Are?: Geo-Entity Linking for Noisy Multilingual User Input". In: *Proceedings of the Sixth Workshop on Natural Language Processing and Computational Social Science at NAACL.* 2024. ⚲URL: https://aclanthology.org/2024.nlpcss-1.7.

2   **Tessa Masis** and Brendan O'Connor. "Where on Earth Do Users Say They Are?: Geo-Entity Linking for Noisy User Input". In: *International Conference on Computational Social Science (IC2S2).* 2024.

3   **Tessa Masis**. "Exploring morphosyntactic variation in low-resource English varieties". Lightning talk presentation at CRA-IDEALS Grad Cohort Workshop. 2023.

4 **Tessa Masis**, Zhangqi Duan, Weiai Xu, Jonathan Corpus Ong, Ethan Zuckerman, Jane Pyo, and Brendan O'Connor. "The Online #StopAsianHate Movement: More Global and BTS-Driven Than You'd Think". In: *New Directions in Analyzing Text as Data (TADA)*. 2023.

5 **Tessa Masis**, Chloe Eggleston, Lisa Green, Taylor Jones, Meghan Armstrong, and Brendan O'Connor. "Investigating grammatical variation in African American English on Twitter". In: *International Conference on Computational Social Science (IC2S2)*. 2023.

6 **Tessa Masis**, Chloe Eggleston, Lisa Green, Taylor Jones, Meghan Armstrong, and Brendan O'Connor. "Investigating Morphosyntactic Variation in African American English on Twitter". In: *Proceedings of the Society for Computation in Linguistics (SCiL)*. 2023. ⚭URL: https://scholarworks.umass.edu/scil/vol6/iss1/41/.

7 **Tessa Masis**, Chloe Eggleston, Anissa Neal, Lisa Green, and Brendan O'Connor. "A large-scale Twitter-based exploration of morphosyntactic geographic variation in African American English". In: *New Ways of Analyzing Variation (NWAV) 50*. 2022.

8 **Tessa Masis**, Anissa Neal, Lisa Green, and Brendan O'Connor. "Corpus-Guided Contrast Sets for Morphosyntactic Feature Detection in Low-Resource English Varieties". In: *Proceedings of the First Workshop on NLP Applications to Field Linguistics at COLING*. 2022. ⚭URL: https://aclanthology.org/2022.fieldmatters-1.2.

9 **Tessa Masis** and Carolyn Jane Anderson. "ProSPer: Probing Human and Neural Network Language Model Understanding of Spatial Perspective". In: *Proceedings of the Fourth BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP at EMNLP*. 2021. ⚭URL: https://aclanthology.org/2021.blackboxnlp-1.8.

10 Carolyn Jane Anderson and **Tessa Masis**. "Can neural network language models learn spatial perspective from text alone?" In: *Bridging AI and Cognitive Science Workshop (BAICS) at ICLR*. 2020.

11 **Tessa Masis**. "The Poetics of Gender Devaluation in Homeric Heroism". In: *Scholarship for Undergraduate Literary Studies Conference*. 2020.

12 **Tessa Masis**. "Predictive Word Error Rate Metrics (WERMs)". Intern presentation at Raytheon BBN Technologies. 2019.

INVITED TALKS

2024   ▷   "Adventures in computational social science". CICS 291S: Second Year Pathways, University of Massachusetts Amherst.

2023   ▷   "Investigating grammatical variation in African American English on Twitter". Bridging methods to study sociolectal variation workshop, LSA institute.

     ▷   _____. Learning & Work Equity Seminar, Institute of Diversity Sciences, University of Massachusetts Amherst.

     ▷   "Exploring morphosyntactic variation in low-resource English varieties". COMSC 341NL: Natural Language Processing, Mount Holyoke College.

2022   ▷   _____. CS 333: Natural Language Processing, Wellesley College.

TEACHING EXPERIENCE

Spring 2022   ▷   **Graduate Teaching Assistant,** University of Massachusetts Amherst.
                  CS220: Programming Methodology

Fall 2020   ▷   **Machine Learning Club Team Leader,** University of Massachusetts Amherst.
                  Weekly meetings introducing NLP and Data Science concepts to undergraduates

TEACHING EXPERIENCE (continued)

Fall 2019   ▷   **Undergraduate Teaching Assistant,** University of Massachusetts Amherst.
CS220: Programming Methodology

MENTORING

Summer 2023   ▷   Zhangqi Duan (MS), Data Science for the Common Good internship, UMass Amherst.

SERVICE & OUTREACH

Reviewer   ▷   CSCW (2024)
EMNLP (2023)
FAccT (2024)
ICWSM (2024, 2025)
LREC-COLING (2024)
Field Matters Workshop (2023, 2024)
NLP+CSS Workshop (2024)
IC2S2 (2024)

Tutorials   ▷   Co-organizer, "Neural NLP methods for linguistic feature detection in sociolinguistic corpora", Bridging methods to study sociolectal variation workshop at the LSA Institute (2023)

Other   ▷   PhD program application reader, UMass Amherst CICS (2023)
Graduate student panelist, Undergraduate Research Night, UMass Amherst CICS (2023)
PhD panelist, PhD Applicant Support Program webinar, UMass Amherst CICS (2023)
NSF GRFP mentor, UMass Amherst Graduate School (2023)
Volunteer, Building circuits with Arduino workshop, Massenberg STEM Institute (2023)
PhD mentor, COMPSCI 696DS: Industry Mentorship Course, UMass Amherst CICS (2023)
PhD mentor, PhD Applicant Support Program, UMass Amherst CICS (2020, 2023)

SKILLS

Languages   ▷   Python, Java, JavaScript, MATLAB, C, Perl

Libraries   ▷   NumPy, PyTorch, scikit-learn, SciPy, TensorFlow, NLTK

Relevant coursework   ▷   Machine Learning, Neural Networks, Natural Language Processing, Algorithms, Computer Systems Principles, Probability, Computational Linguistics, Cognitive Modeling, Syntax, Phonetics and Phonology, Theories of Learning, Data Visualization and Exploration