

## Mounica Maddela

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INTERESTS	Natural Language Processing, Machine Learning and Social Media.	
EDUCATION	<b>Georgia Institute of Technology</b> , Atlanta, Georgia, USA <i>Ph.D. in Computer Science</i>	2020-present
	<b>The Ohio State University</b> (Transferred), Columbus, Ohio, USA <i>Ph.D. in Computer Science and Engineering</i> GPA - 3.94 / 4.00	2017-2020
	<b>University of Pennsylvania</b> , Philadelphia, Pennsylvania, USA <i>Master of Science in Computer and Information Science</i> GPA - 3.64 / 4.00	2013-2015
	<b>International Institute of Information Technology</b> , Hyderabad, India <i>Bachelor of Technology(Honors) in Computer Science and Engineering</i> GPA - 9.07 / 10.00	2009-2013
PUBLICATIONS	<i>Neural CRF Model for Sentence Alignment in Text Simplification</i> Chao Jiang, <b>Mounica Maddela</b> , Wuwei Lan, Yang Zhong, Wei Xu Proceedings of ACL 2020, long paper	
	<i>Code and Named Entity Recognition in StackOverflow</i> Jeniya Tabassum, <b>Mounica Maddela</b> , Wei Xu, Alan Ritter Proceedings of ACL 2020, long paper	
	<i>Multi-task Pairwise Neural Ranking for Hashtag Segmentation</i> <b>Mounica Maddela</b> , Wei Xu and Daniel Preotjiuc-Pietro Proceedings of ACL 2019, long paper	
	<i>A Word-Complexity Lexicon and A Neural Readability Ranking Model for Lexical Simplification.</i> <b>Mounica Maddela</b> and Wei Xu Proceedings of EMNLP 2018, long paper	
RESEARCH EXPERIENCE	<b>Graduate Research Assistant, OSU/GT</b> <i>Advisor: Dr. Wei Xu</i>	08/2017 - present
	<b>Text Simplification</b> Designed a new hybrid model for sentence simplification task. Our approach combines linguistically-motivated syntactic rules with a data-driven Transformer model to generate a simplified version of the input complex sentence. Our model outperformed the state-of-the-art system in terms of both automatic metrics (3.1 points difference in SARI, the main automatic metric for the task) and human evaluation.	
	<b>Hashtag Segmentation</b> Developed a novel neural model to break a hashtag into its constituent words. Our approach addresses the diverse language style in social media and also adapts to the type of hashtag. Our model outperformed the state-of-the-art by 1.8 points in F1 and also improved the performance of the downstream sentiment analysis task by 2.4 points in F1.	
	<b>Lexical Simplification</b> Designed a neural model to replace complex words in a sentence with simpler words. Our approach uses a combination of human judgments and linguistic features to estimate the readability of any given word or phrase.	

## Code and Named Entity Recognition

Developed a classifier that captures word spelling patterns to predict how likely the input word can be a code token without any sentential context. When combined with a BERT-based Named Entity Recognizer, the classifier has shown to improve the recognizer performance on StackOverflow posts by 2.7 points in F1.

## Independent Study Project, UPENN

01/2014 - 05/2015

*Advisor: Dr. Lyle Ungar*

Captured the different sources and interpretations of well-being across various countries by analyzing the distribution of sentiment words.

## INDUSTRY EXPERIENCE

### Software Development Engineer

06/2015 - 07/2017

Big Data Technologies, Amazon, Seattle

Improved data job monitoring experience in DataNet, one of Amazon's internal data management systems. Migrated the back-end legacy systems in DataNet from Oracle to Amazon Web Services.

### Software Development Intern

06/2014 - 08/2014

Big Data Technologies, Amazon, Seattle

Developed natural language interface to help customers communicate with Grasshopper, a SQL query builder system.

### Text Mining Intern

06/2013 - 08/2013

SetuServ, Hyderabad, India

Worked on text analytics tasks like sentiment analysis of tweets posted during a clinical conference and categorization of credit card transactions.

## AWARDS

The Ohio State University PhD Fellowship for 2017-2018

Research Award for undergraduate students at IIIT-H for 2011-2012

Deans Academic Award List for all the 8 semesters (Fall 2009 - Spring 2013)

## SKILLS

Programming Languages : Python, Java

NLP and Data Mining Tools : Fairseq, PyTorch, Stanford CoreNLP, Stanford Topic Modelling Toolbox, MALLET, Scikit, NLTK

## TALKS

### Multi-task Pairwise Neural Ranking for Hashtag Segmentation

AI Seminar, OSU, August 2019

### A Word-Complexity Lexicon and A Neural Readability Ranking Model for Lexical Simplification

AI Seminar, OSU, October 2018

Clippers Meeting, OSU, November 2018

Midwest Speech and Language Days, May 2019

### Lexical Simplification

Guest Speaker, CSE 3521, March 2019

## SERVICES

Reviewer for ACL 2020, AAAI 2020, NAACL 2019, EMNLP 2019, W-NUT 2019

Women in Engineering Graduate Council Member (OSU)

Co-founder of Graduate Women in Computer Science (OSU)

## AFFILIATIONS

Association for Computational Linguistics (ACL)

## TEACHING

Graduate Teaching Assistant for Speech and Language Processing (OSU)

Graduate Teaching Assistant for Internet and Web Systems (UPENN)

Graduate Teaching Assistant for Computational Linguistics (UPENN)

Undergraduate Teaching Assistant for Introduction to Databases (IIIT)