

MOUNICA MADDELA

mounicam.github.io | +1-215-290-6918 | mmaddela1005@gmail.com | linkedin.com/in/mmaddela | github.com/mounicam

EDUCATION

Georgia Institute of Technology , Atlanta, Georgia, USA Ph.D. in Computer Science (GPA - 4.00/ 4.00) Research Interests: Natural Language Generation, Natural Language Processing, and Social Media.	2020-present
The Ohio State University (Transferred), Columbus, Ohio, USA Ph.D. in Computer Science and Engineering (GPA - 3.94/ 4.00)	2017-2020
University of Pennsylvania , Philadelphia, Pennsylvania, USA Master of Science in Computer and Information Science (GPA - 3.64 / 4.00)	2013-2015
International Institute of Information Technology , Hyderabad, India Bachelor of Technology (Honors) in Computer Science and Engineering (GPA - 9.07 / 10.00)	2009-2013

PUBLICATIONS

- Joongwon Kim*, **Mounica Maddela***, Reno Kriz, Wei Xu, and Chris Callison-Burch. **BiSECT: Learning to Split and Rephrase Sentences with Bitexts**. EMNLP 2021. * indicates equal contribution.
- Mounica Maddela**, Fernando Alva-Manchego, Wei Xu. **Controllable Text Simplification with Explicit Paraphrasing**. NAACL 2021.
- Chao Jiang, **Mounica Maddela**, Wuwei Lan, Yang Zhong, Wei Xu. **Neural CRF Model for Sentence Alignment in Text Simplification**. ACL 2020.
- Jeniya Tabassum, **Mounica Maddela**, Wei Xu, Alan Ritter. **Code and Named Entity Recognition in StackOverflow**. ACL 2020.
- Mounica Maddela**, Wei Xu, Daniel Preotiuc-Pietro. **Multi-task Pairwise Neural Ranking for Hashtag Segmentation**. ACL 2019.
- Mounica Maddela**, Wei Xu. **A Word-Complexity Lexicon and A Neural Readability Ranking Model for Lexical Simplification**. EMNLP 2018.

TECHNICAL SKILLS

- Programming Languages: **Python**, Java.
- NLP and Deep learning libraries: **PyTorch**, **Fairseq**, **Hugging Face**, Stanford CoreNLP, Scikit, NLTK.

RESEARCH EXPERIENCE

Graduate Research Assistant, OSU/GT. (Advisor: Dr. Wei Xu)	08/2017 - present
<ul style="list-style-type: none">Controllable Text Generation - Text Simplification: Designed a new hybrid model that combines linguistically-motivated syntactic rules with a data-driven Transformer model to generate a simplified version of the input sentence. Our model can control the extent of each simplification operation namely splitting, deletion, and lexical paraphrasing. Our model outperformed the state-of-the-art in terms of both automatic metrics (3.1 points difference in SARI) and human evaluation.Text Generation - Split and Rephrase: Developed a novel model that captures only the split-related edits in the source-split training pairs to encourage meaning preservation of the generation systems. Our model leverages heuristics and linguistic rules to identify such split-based edits and incorporates them into a customized loss function as distantly supervised labels.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.Hashtag Segmentation: 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.	

INDUSTRY EXPERIENCE

Research AI Intern. (Text Enrichment team, AI Group, Bloomberg, USA)	05/2021 - 08/2021
<ul style="list-style-type: none">Developed dataset and controllable text generation models for entity-centric summarization.	
Software Development Engineer. (Big Data Technologies, Amazon, USA)	06/2015 - 07/2017
<ul style="list-style-type: none">Developed a natural language interface to help customers communicate with our SQL query builder system.Improved data job monitoring experience in DataNet, one of Amazon's internal data management systems, to help the data analysts at Amazon run SQL queries on customer databases.	

AWARDS

- The Ohio State University PhD Fellowship for 2017-2018
- Research Award for undergraduate students at IIIT-H for 2011-2012
- Dean's Academic Award List for all the 8 semesters (Fall 2009 - Spring 2013)

PROFESSIONAL ACTIVITIES

- Reviewer for NAACL 2019-21, ACL 2019-21, EMNLP 2019-20, W-NUT 2019-21, AAAI 2020
- Co-organizer of Georgia Tech NLP seminar 2020-2021.
- Co-organizer of The GEM Benchmark: Natural Language Generation, its Evaluation and Metrics Workshop at ACL 2021.