



Emma Strubell

(Umass Amherst)

Friday, Nov. 30th

2:30 pm Talk, Porter Hall 100

4:00 pm Snacks, LTI 5th Floor

THE NEURAL NETWORK ARCHITECTURES FOR EFFICIENT AND ROBUST NLP

NLP has come of age. For example, semantic role labeling (SRL), which automatically annotates sentences with a labeled graph representing “who” did “what” to “whom,” has in the past ten years seen nearly 40% reduction in error, bringing it to useful accuracy. As a result, hoards of practitioners now want to deploy NLP systems on billions of documents across many domains. However, state-of-the-art NLP systems are typically not optimized for cross-domain robustness nor computational efficiency.

In this talk I will present two new methods to facilitate fast, accurate and robust NLP.

Emma Strubell is a final-year PhD candidate in the College of Information and Computer Sciences at UMass Amherst, advised by Andrew McCallum. Her research aims to provide fast, accurate, and robust natural language processing to the diversity of academic and industrial investigators eager to pull insight and decision support from massive text data in many domains. Toward this end she works at the intersection of natural language understanding, machine learning, and deep learning methods cognizant of modern tensor processing hardware Emma has interned as a research scientist at Amazon and Google and received the IBM PhD Fellowship Award.

She is also an active advocate for women in computer science, serving as leader of the UMass CS Women’s group where she co-organized and won grants to support cross-cultural peer mentoring, conference travel grants for women, and technical workshops. Her research has been recognized with best paper awards at ACL 2015 and EMNLP 2018.