Tree LSTMs with Convolution Units to Predict Stance and Rumor Veracity in Social Media Conversations

The paper proposes to use convolution units in Tree LSTMs that are better at learning patterns in features obtained from the source and reply posts. It gives two hints. One is that tree LSTMs can have a better effect in showing the connection between sources and reply, which will improve the effect. Another is that a useful signal(stance in the paper) will lead to a better performance in rumor classification.

Reply-Aided Detection of Misinformation via Bayesian Deep Learning

The paper uses a Bayesian deep learning model to represent the uncertainty of the prediction to rumor veracity. The paper firstly encodes a claim to be verified, and generate a prior belief distribution from which we sample a latent variable, then encodes all the people’s replies to using LSTM to update the prior belief generating posterior belief. The paper uses Stochastic Gradient Variational bayes to get the iterations.