

# Catastrophic Interference in Neural Embedding Models (Dachapally & Jones)

Catastrophic forgetting is the tendency of neural models to have a strong recency bias e.g. more recent training examples are more likely to be predicted.

## DSM

Distributional Semantic Models encompass geometric models like latent dirichlet allocation and svd as well as neural embedding models. Neural embedding models are

## Experiment 1

### Create artificial data

using the following sentence generation patterns

- "Man/woman catch/eat trout/bass"
- "Man/woman play/pluck acoustic/bass"

The idea is to capture the two homophonous meanings of 'bass' and place them in embedding contexts identical to that of a synonym.

### Ordering of data

# Balancing distribution of homophones

- Random sampling
- All 'fish' interpretations first
- All 'musical' interpretations first

1/3 of one meaning

## Evaluation

Looked at cosine similarity between word embedding vectors learned

## Experiment 2

Conducted using real data TASSA corpus

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