

Investigating Hyperparameters⁸

Levy, Goldberg, and Dagan perform a **systematic evaluation** of word2vec, SVD, and GloVe where **hyperparameters are controlled for** and **optimized across different methods** for a variety of tasks.

Interesting results:

MSR's analogy dataset is the only case where SGNS and GloVe substantially outperform PPMI and SVD.

And:

*...SGNS outperforms GloVe in **every** task.*

⁸Omer Levy, Yoav Goldberg, and Ido Dagan. "Improving Distributional Similarity with Lessons Learned from Word Embeddings". In: *Transactions of the Association for Computational Linguistics* 3 (2015), pp. 211–225.