Reimplementing Neural Tensor Networks for Knowledge Base Completion (KBC) in the TensorFlow framework

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Reasoning with Neural Tensor Networks for Knowledge Base Completion has become something of a seminal paper in the short span of two years, cited by nearly every knowledge base completion (KBC) paper since it's publication in 2013. It was one of the first major successful forays into the field of Deep Learning approaches to knowledge base completion, and was unique for using deep learning "end to end".

TensorFlow is a tensor-oriented numerical computation library recently released by Google. It represents algorithms as directed acyclic graphs (DAGs), nodes as operations and edges as schemas for tensors. It has a robust python API and bindings to GPUs.

We reimplemented Socher's algorithm in the TensorFlow framework, achieving similar accuracy results with an elegant implementation in a modern language.