## **Word Embedding**

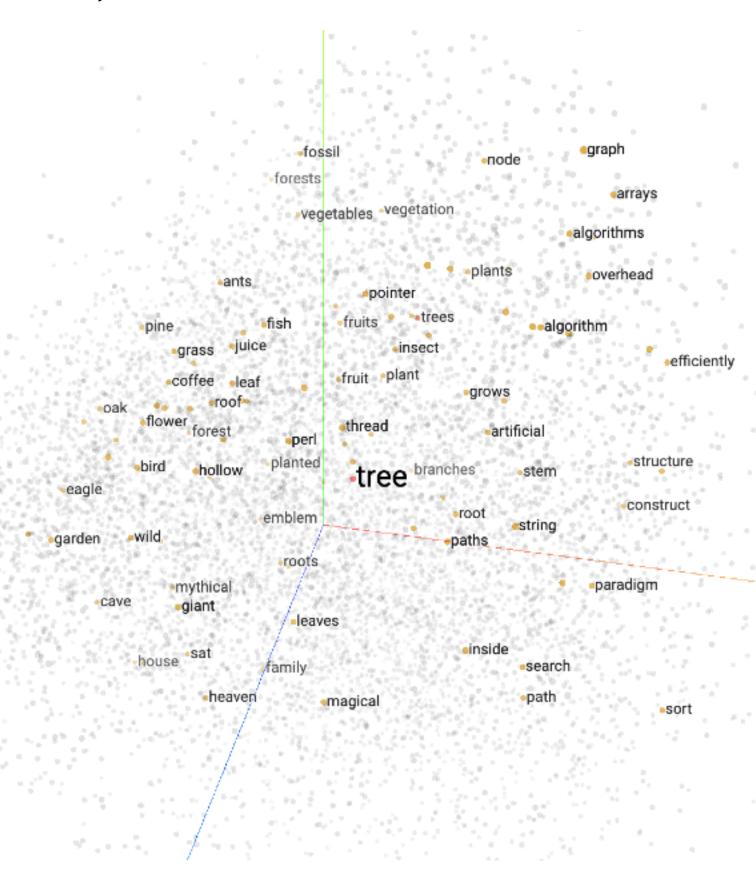
In natural language processing (NLP), a word embedding is a representation of a word. The embedding is used in text analysis.

Typically, the representation is a real-valued vector that encodes the meaning of the word in such a way that words that are closer in the vector space are expected to be similar in meaning.

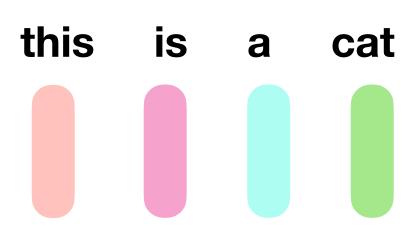
用向量表示词汇,将词汇映射到向量空间,在向量空间中,特征相近的词汇靠的会比较近

https://projector.tensorflow.org/

## 1w points, 200 dim



## 输入词向量集合



## **One-hot Encoding**

this = 
$$[1, 0, 0, 0]$$

is 
$$= [0, 1, 0, 0]$$

$$a = [0, 0, 1, 0]$$

cat = 
$$[0, 0, 0, 1]$$

