**Word2Vec Pearson R**  
Gensim: 0.5403547790251151  
\*Ind. Calculated: 0.7391

**GloVe Pearson R**  
Gensim: 0.5220142033688262  
\*Ind. Calculated: 0.522

Independently calculated using <https://www.socscistatistics.com/tests/pearson/default2.aspx>

**Data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word 1** | **Word 2** | **Word2Vec Similarity** | **GloVe Similarity** | **Human Score** |
| silver | gold | 0.83132917 | 0.8480941 | 0.7 |
| train | jump | 0.11770811 | 0.19572121 | 0.1 |
| read | skim | 0.33076593 | 0.020022724 | 0.6 |
| coffee | tea | 0.56352925 | 0.66921115 | 0.8 |
| blue | cyan | 0.42554638 | 0.2114841 | 0.8 |
| team | leader | 0.25936216 | 0.29156846 | 0.2 |
| cereal | cat | 0.22654635 | 0.12025993 | 0.1 |
| fire | moon | 0.035352614 | 0.17890069 | 0.1 |
| foot | finger | 0.26735663 | 0.38906366 | 0.3 |
| speak | say | 0.32584506 | 0.47772622 | 0.8 |

**Code**

wv = api.load('word2vec-google-news-300') #From Gensim, downloads pre-trained Word2Vec vectors

glove = api.load('glove-wiki-gigaword-300') # From Gensim, downloads pre-trained Glove vectors

print(wv.evaluate\_word\_pairs("SimLexSelfA2.txt"))

print("\n")

print(glove.evaluate\_word\_pairs("SimLexSelfA2.txt"))

print("\n")

#Produces similarity scores for word pairs

print("Individual Word2Vec Similarities:")

print(wv.similarity("silver","gold"))

print(wv.similarity("train","jump"))

print(wv.similarity("read","skim"))

print(wv.similarity("coffee","tea"))

print(wv.similarity("blue","cyan"))

print(wv.similarity("team","leader"))

print(wv.similarity("cereal","cat"))

print(wv.similarity("fire","moon"))

print(wv.similarity("foot","finger"))

print(wv.similarity("speak","say"))

print("\n")

print("Individual GloVe Similarities:")

print(glove.similarity("silver","gold"))

print(glove.similarity("train","jump"))

print(glove.similarity("read","skim"))

print(glove.similarity("coffee","tea"))

print(glove.similarity("blue","cyan"))

print(glove.similarity("team","leader"))

print(glove.similarity("cereal","cat"))

print(glove.similarity("fire","moon"))

print(glove.similarity("foot","finger"))

print(glove.similarity("speak","say"))