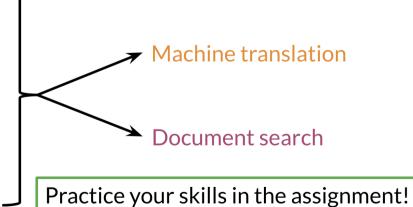# Searching documents

The previous video shows you a toy example of how you can actually represent a document as a vector.

```python
word_embedding = {"I": np.array([1,0,1]),
                  "love": np.array([-1,0,1]),
                  "learning": np.array([1,0,1])}

words_in_document = ['I', 'love', 'learning']

document_embedding = np.array([0,0,0])

for word in words_in_document:
    document_embedding += word_embedding.get(word,0)

print(document_embedding)
array([1 0 3])
```

In this example, you just add the word vectors of a document to get the document vector. So in summary you should now be familiar with the following concepts:

- Transform vector
- "K nearest neighbors"
- Hash tables
- Divide vector space into regions
- Locality sensitive hashing
- Approximated nearest neighbors

Machine translation

Document search

Practice your skills in the assignment!

Good luck with the programming assignment!