

Weekly report

Aug. 5 – Aug. 9

Progress

40

- Build new labeling specifications for text2scene data
- Analyses of the current model, in terms of runtime, performance and feature contributions

完整的报告 之后做参考

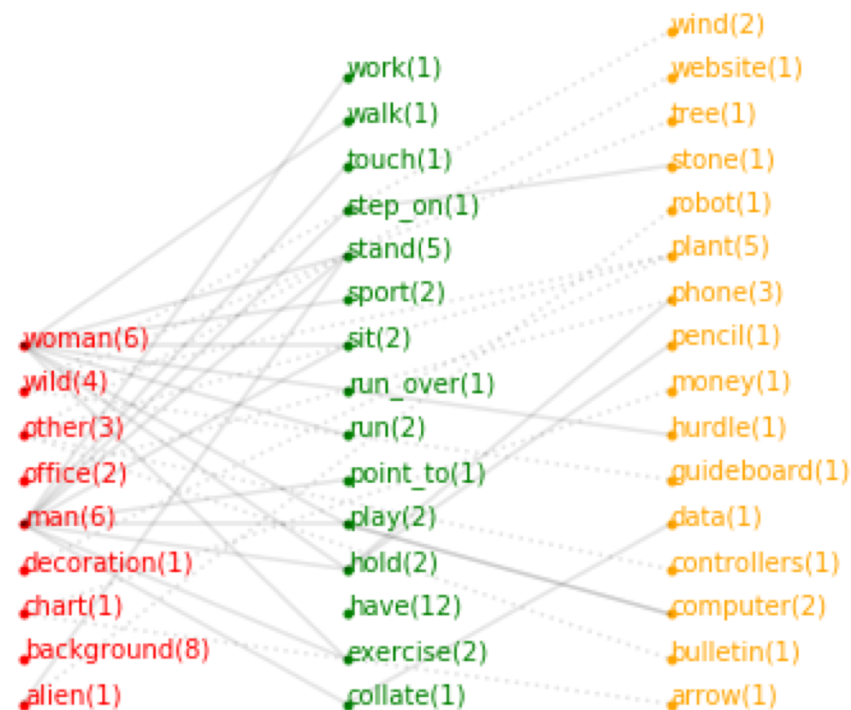
Table 4: Runtime profile in a hierarchy. The number below each module indicates the cumulative time spent on it, on seconds. Each module here is called 668 times during a query. The number after for_loop indicates the number of pairs this loop traversed.

query									
4.092									
encoder					encoder				
(consistency discriminator)					(reality discriminator) ...				
3.508					0.344				
encoder		encoder		encoder		...		encoder	
(joint)		(text)		(picture)				(picture)	
1.972		0.730		0.344				0.344	
for_loop(33*298)	tokenizer	...	tokenizer	vectorizer	for_loop(16*17)	...		for_loop(16*17)	...
1.643	0.180		0.427	0.303	0.285			0.180	

Progress

- Prepare features for the new dataset
- Preprocessing and analyses on the sample data

特征设计
现在是区分词性，所以存在各种搭配
需要一些论文



Progress

Skills

- Learned about sophisticated textual embedding techniques
- Related papers
 - Top-k Exploration of Query Candidates for Efficient Keyword Search on Graph-Shaped (RDF) Data
 - A Semantic Approach to Recommending Text Advertisements for Images
- Related tools
 - [BabelNet](#)
 - [ConceptNet](#)
 - [Wikipedia-based Explicit Semantic Analysis](#)

To do

- A feature encoder that properly tackle the curse of dimensionality
- Synonym replacement to handle unseen tokens
- Make use of babelNet or ConceptNet to encode the similarity between tokens with different POS tags
- Optimization on the runtime efficiency