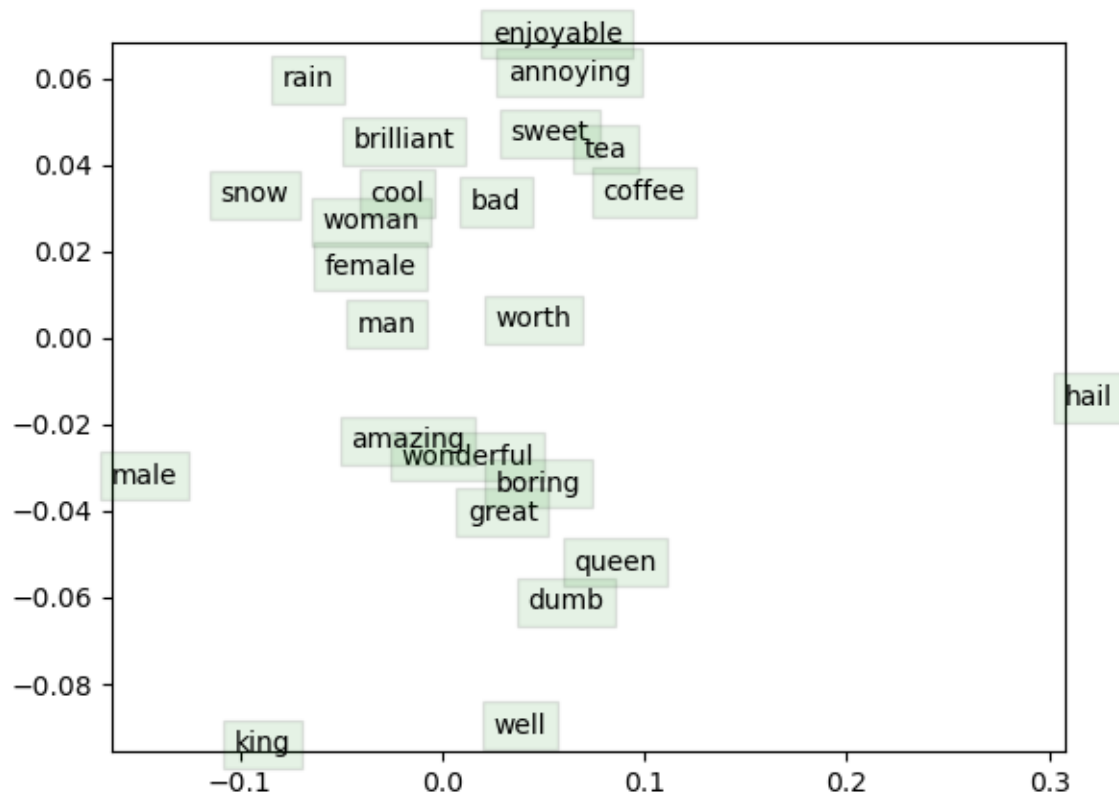


## CSCI 5800: NATURAL LANGUAGE PROCESSING AND GENAI – Assignment 2

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In the generated word embeddings plot, I feel that {"snow", "hail"}, {"king", "queen"} should be closer to each other rather than being far apart. Also, the cluster that is formed ("queen", "dumb") might be biased when looked at.

The following is the snapshot of the running time and gradient.

```
iter 39930: 9.681717
iter 39940: 9.611494
iter 39950: 9.629689
iter 39960: 9.717683
iter 39970: 9.776979
iter 39980: 9.813174
iter 39990: 9.854022
iter 40000: 9.812206
sanity check: cost at convergence should be around or below 10
training took 6665 seconds
```