**Summary of the experiment results of the Word2vec**

[Result table]

***Analogy test dataset***: The Semantic-Syntactic Word Relationship test set

*Semantic test set*: 8869/8755 / *Syntactic test set*: 10675/10675

(The figures in parentheses for accuracy are the figures from the paper)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| model | | window | neg | epoch | lr | sub\_t | D | train  time | Semantic | Syntactic | total |
| CBOW | NEG | 5 | 5 | 3 | 0.025 | 1e-05 | 300 | 50.7h | 52.36%  (n/a) | 62.88% (n/a) | 58.14% (n/a) |
| CBOW | HS | 5 | . | 1 | 0.05 | 1e-05 | 300 | 8.4h | 24.84%  (n/a) | 38.08% (n/a) | 32.11% (n/a) |
| CBOW | HS | 5 | . | 3 | 0.05 | 1e-05 | 300 | 42.7h | 18.46%  (n/a) | 43.00% (n/a) | 31.94% (n/a) |
| CBOW | HS | 5 | . | 1 | 0.05 | 1e-04 | 300 | 18.7h | 20.72%  (13.8%) | 50.51% (49.9%) | 37.09% (33.6%) |
| CBOW | HS | 5 | . | 3 | 0.05 | 1e-04 | 300 | 58.6h | 23.54%  (15.5%) | 52.86% (53.1%) | 39.65% (36.1%) |
| SG | NEG | 5 | 5 | 1 | 0.025 | 0 | 300 | 145.5h | 47.61%  (n/a) | 61.56% (n/a) | 55.27% (n/a) |
| SG | NEG | 5 | 5 | 1 | 0.025 | 1e-03 | 300 | 96.3h | 53.25%  (n/a) | 59.57% (n/a) | 56.72% (n/a) |
| SG | NEG | 5 | 5 | 1 | 0.025 | 1e-04 | 300 | 52.8h | 55.01%  (n/a) | 62.02% (n/a) | 58.86% (n/a) |
| SG | NEG | 5 | 5 | 3 | 0.025 | 1e-04 | 300 | 157h | 66.89%  (58%) | 66.47% (61%) | 66.66% (60%) |
| SG | NEG | 5 | 5 | 1 | 0.025 | 1e-05 | 300 | 20.2h | 40.98%  (n/a) | 49.13% (n/a) | 45.43% (n/a) |
| SG | NEG | 5 | 5 | 3 | 0.025 | 1e-05 | 300 | 56.9h | 58.24%  (n/a) | 59.19% (n/a) | 58.76% (n/a) |
| SG | NEG | 5 | 5 | 3 | 0.025 | 1e-05 | 100 | 40.0h | 51.52%  (n/a) | 51.31%  (n/a) | 51.41%  (n/a) |
| SG | NEG | 10 | 5 | 3 | 0.025 | 1e-05 | 300 | 53.3h | 56.30%  (n/a) | 58.14%  (n/a) | 57.31%  (n/a) |
| SG | NEG | 5 | 5 | 5 | 0.025 | 1e-05 | 300 | 93.4h | 63.21%  (n/a) | 60.38% (n/a) | 61.66% (n/a) |
| SG | NEG | 5 | 15 | 3 | 0.025 | 1e-04 | 300 | 169.8h | 66.96%  (61%) | 65.84% (61%) | 66.34% (61%) |
| SG | NEG | 5 | 15 | 5 | 0.025 | 1e-05 | 300 | 139.4h | 63.24%  (n/a) | 60.17% (n/a) | 61.55% (n/a) |
| SG | HS | 5 | . | 1 | 0.025 | 0 | 300 | 50.1h | 31.42%  (n/a) | 53.34% (n/a) | 43.46% (n/a) |
| SG | HS | 5 | . | 1 | 0.025 | 1e-03 | 300 | 33.2h | 42.26%  (n/a) | 54.51% (n/a) | 48.99% (n/a) |
| SG | HS | 5 | . | 3 | 0.025 | 1e-03 | 300 | 96.4h | 48.37%  (n/a) | 56.50% (n/a) | 52.84% (n/a) |
| SG | HS | 5 | . | 1 | 0.025 | 1e-04 | 300 | 21.2h | 48.04%  (45.6%) | 52.66% (52.2%) | 50.58% (49.2%) |
| SG | HS | 5 | . | 3 | 0.025 | 1e-04 | 300 | 60.7h | 57.19%  (50.0%) | 56.18% (55.9%) | 56.63% (53.3%) |
| SG | HS | 5 | . | 1 | 0.025 | 1e-05 | 300 | 10.6h | 38.87%  (n/a) | 37.33% (n/a) | 38.02% (n/a) |
| SG | HS | 5 | . | 3 | 0.025 | 1e-05 | 300 | 48.9h | 42.43%  (n/a) | 31.74% (n/a) | 36.56% (n/a) |