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| **Research Paper** | **Dataset** | **Model** | **Dataset**  **Size** | **Metric name** | **Metric value** | **Comparison** |
| Graph Neural Networks for Social Recommendation | Epinions | GraphRec | 75,879 nodes and 50,8837 edges. | MAE | 0.8168 | GraphRec |
| Knowledge Graph Convolutional Networks for Recommender Systems | Yelp | KGCN | 224M reviews | HR@10 | 0.8125 | KG |
| Neural Collaborative Filtering | Pinterest | NeuMF | 1million images | HR@10 | 0.8790 | NCF |
| Neural Graph Collaborative Filtering | MovieLens 25M | NGCF | 250mb | Hits@10 | 0.7807 | HOP-Rec for CF |
| Graph Convolutional Matrix Completion | YahooMusic Monti | GC-MC | 120 tracks of 30 second length | RMSE | 0.832 | GMC |
| Session-based Recommendation with Graph Neural Networks | Gowalla | SR-GNN | 196,591 nodes and 950,327 edges. | HR@20 | 50.32 | STAMP |
| Coupled Graphs and Tensor Factorization for Recommender Systems and Community Detection | Digg | CGTF | 30Gb | NMI | 0.68 | CMTF |
| POI Neural-Rec Model via Graph Embedding Representation | Gowalla | DG-NeuRec | 196,591 nodes and 950,327 edges. | HR@20 | 0.7636 | SG-NeuRec |
| A Deep Graph Neural Network-based  Mechanism for Social Recommendations | Epinions | GNN-SoR | 75,879 nodes and 50,8837 edges. | MAE | 0.833 | SoR |

Paper with code:

* Graph Neural Networks for Social Recommendation:

<https://paperswithcode.com/paper/graph-neural-networks-for-social>

* Knowledge Graph Convolutional Networks for Recommender Systems:

<https://paperswithcode.com/paper/190412575>

* Neural Collaborative Filtering:

[https://paperswithcode.com/paper/neural-collaborative-filtering](https://paperswithcode.com/paper/neural-graph-collaborative-filtering)

* Neural Graph Collaborative Filtering:

<https://paperswithcode.com/paper/neural-graph-collaborative-filtering>

* Graph Convolutional Matrix Completion:

<https://paperswithcode.com/paper/graph-convolutional-matrix-completion>

* Session-based Recommendation with Graph Neural Networks:

<https://paperswithcode.com/paper/session-based-recommendation-with-graph>

* Coupled Graphs and Tensor Factorization for Recommender Systems and Community Detection:

<https://paperswithcode.com/paper/coupled-graphs-and-tensor-factorization-for>

* POI Neural-Rec Model via Graph Embedding Representation
* A Deep Graph Neural Network-based Mechanism for Social Recommendations