

REFERENCES

- [1] Deepak Agarwal and Bee-Chung Chen. 2009. Regression-based latent factor models. In *Proceedings of the 15th ACM SIGKDD international conference on Knowledge discovery and data mining*. ACM, 19–28.
- [2] Trapit Bansal, Mrinal Das, and Chiranjib Bhattacharyya. 2015. Content driven user profiling for comment-worthy recommendations of news and blog articles. In *Proceedings of the 9th ACM Conference on Recommender Systems*. ACM.
- [3] David M Blei, Andrew Y Ng, and Michael I Jordan. 2003. Latent dirichlet allocation. *Journal of machine Learning research* 3, Jan (2003), 993–1022.
- [4] Antoine Bordes, Nicolas Usunier, Alberto Garcia-Duran, Jason Weston, and Oksana Yakhnenko. 2013. Translating embeddings for modeling multi-relational data. In *Advances in Neural Information Processing Systems*. 2787–2795.
- [5] Antoine Bordes, Jason Weston, Ronan Collobert, Yoshua Bengio, et al. 2011. Learning Structured Embeddings of Knowledge Bases.. In *AAAI*, Vol. 6. 6.
- [6] Heng-Tze Cheng, Levent Koc, Jeremiah Harmsen, Tal Shaked, Tushar Chandra, Hrishu Aradhya, Glen Anderson, Greg Corrado, Wei Chai, Mustafa Ispir, et al. 2016. Wide & deep learning for recommender systems. In *Proceedings of the 1st Workshop on Deep Learning for Recommender Systems*. ACM, 7–10.
- [7] Alexis Conneau, Holger Schwenk, Loïc Barrault, and Yann Lecun. 2016. Very deep convolutional networks for natural language processing. *arXiv preprint arXiv:1606.01781* (2016).
- [8] Paul Covington, Jay Adams, and Emre Sargin. 2016. Deep neural networks for youtube recommendations. In *Proceedings of the 10th ACM Conference on Recommender Systems*. ACM, 191–198.
- [9] Qiming Diao, Minghui Qiu, Chao-Yuan Wu, Alexander J Smola, Jing Jiang, and Chong Wang. 2014. Jointly modeling aspects, ratings and sentiments for movie recommendation (jmars). In *KDD*. ACM, 193–202.
- [10] Li Dong, Furu Wei, Ming Zhou, and Ke Xu. 2015. Question Answering over Freebase with Multi-Column Convolutional Neural Networks. In *ACL (1)*.
- [11] Ali Mamdouh Elkahky, Yang Song, and Xiaodong He. 2015. A multi-view deep learning approach for cross domain user modeling in recommendation systems. In *Proceedings of the 24th International Conference on World Wide Web*. International World Wide Web Conferences Steering Committee, 278–288.
- [12] Yanjie Fu, Bin Liu, Yong Ge, Zijun Yao, and Hui Xiong. 2014. User preference learning with multiple information fusion for restaurant recommendation. In *Proceedings of the 2014 SIAM International Conference on Data Mining*. SIAM.
- [13] Hui Feng Guo, Ruiming Tang, Yunming Ye, Zhenguo Li, and Xiuqiang He. 2017. DeepFM: A Factorization-Machine based Neural Network for CTR Prediction. In *Proceedings of the 26th International Joint Conference on Artificial Intelligence*.
- [14] Xiangnan He, Lizi Liao, Hanwang Zhang, Liqiang Nie, Xia Hu, and Tat-Seng Chua. 2017. Neural collaborative filtering. In *WWW*. International World Wide Web Conferences Steering Committee, 173–182.
- [15] James Hong and Michael Fang. 2015. *Sentiment analysis with deeply learned distributed representations of variable length texts*. Technical Report. Technical report, Stanford University.
- [16] Po-Sen Huang, Xiaodong He, Jianfeng Gao, Li Deng, Alex Acero, and Larry Heck. 2013. Learning deep structured semantic models for web search using clickthrough data. In *CIKM*. ACM, 2333–2338.
- [17] Rodolphe Jenatton, Nicolas L Roux, Antoine Bordes, and Guillaume R Obozinski. 2012. A latent factor model for highly multi-relational data. In *Advances in Neural Information Processing Systems*. 3167–3175.
- [18] Guoliang Ji, Shizhu He, Liheng Xu, Kang Liu, and Jun Zhao. 2015. Knowledge Graph Embedding via Dynamic Mapping Matrix. In *ACL*. 687–696.
- [19] Nal Kalchbrenner, Edward Grefenstette, and Phil Blunsom. 2014. A convolutional neural network for modelling sentences. *arXiv preprint arXiv:1404.2188* (2014).
- [20] Yoon Kim. 2014. Convolutional neural networks for sentence classification. In *EMNLP*.
- [21] Diederik Kingma and Jimmy Ba. 2014. Adam: A method for stochastic optimization. *arXiv preprint arXiv:1412.6980* (2014).
- [22] Michal Kompan and Mária Bielíková. 2010. Content-Based News Recommendation. In *EC-Web*, Vol. 61. Springer, 61–72.
- [23] Alex Krizhevsky, Ilya Sutskever, and Geoffrey E Hinton. 2012. Imagenet classification with deep convolutional neural networks. In *Advances in neural information processing systems*. 1097–1105.
- [24] Siwei Lai, Liheng Xu, Kang Liu, and Jun Zhao. 2015. Recurrent Convolutional Neural Networks for Text Classification.. In *AAAI*, Vol. 333. 2267–2273.
- [25] Lihong Li, Wei Chu, John Langford, and Robert E Schapire. 2010. A contextual-bandit approach to personalized news article recommendation. In *Proceedings of the 19th international conference on World wide web*. ACM, 661–670.
- [26] Yankai Lin, Zhiyuan Liu, Maosong Sun, Yang Liu, and Xuan Zhu. 2015. Learning Entity and Relation Embeddings for Knowledge Graph Completion. In *AAAI*.
- [27] Jiahui Liu, Peter Dolan, and Elin Rønby Pedersen. 2010. Personalized news recommendation based on click behavior. In *Proceedings of the 15th international conference on Intelligent user interfaces*. ACM, 31–40.
- [28] Tapio Luostarinen and Oskar Kohonen. 2013. Using topic models in content-based news recommender systems. In *Proceedings of the 19th Nordic Conference of Computational Linguistics*. Linköping University Electronic Press, 239–251.
- [29] Yuanhua Lv, Taesup Moon, Pranam Kolari, Zhaohui Zheng, Xuanhui Wang, and Yi Cheng. 2011. Learning to model relatedness for news recommendation. In *Proceedings of the 20th international conference on World wide web*. ACM, 57–66.
- [30] Tomas Mikolov, Ilya Sutskever, Kai Chen, Greg S Corrado, and Jeff Dean. 2013. Distributed representations of words and phrases and their compositionality. In *Advances in neural information processing systems*. 3111–3119.
- [31] David Milne and Ian H Witten. 2008. Learning to link with wikipedia. In *CIKM*. ACM, 509–518.
- [32] Shumpei Okura, Yukihiko Tagami, Shingo Ono, and Akira Tajima. 2017. Embedding-based News Recommendation for Millions of Users. In *KDD*. ACM, 1933–1942.
- [33] Enrico Palumbo, Giuseppe Rizzo, and Raphaël Troncy. 2017. entity2rec: Learning User-Item Relatedness from Knowledge Graphs for Top-N Item Recommendation. (2017).
- [34] Owen Phelan, Kevin McCarthy, and Barry Smyth. 2009. Using twitter to recommend real-time topical news. In *Proceedings of the third ACM conference on Recommender systems*. ACM, 385–388.
- [35] Steffen Rendle. 2012. Factorization machines with libfm. *ACM Transactions on Intelligent Systems and Technology (TIST)* 3, 3 (2012), 57.
- [36] Avirup Sil and Alexander Yates. 2013. Re-ranking for joint named-entity recognition and linking. In *Proceedings of the 22nd ACM international conference on Conference on information & knowledge management*. ACM, 2369–2374.
- [37] Richard Socher, Danqi Chen, Christopher D Manning, and Andrew Ng. 2013. Reasoning with neural tensor networks for knowledge base completion. In *Advances in neural information processing systems*. 926–934.
- [38] Richard Socher, Alex Perelygin, Jean Wu, Jason Chuang, Christopher D Manning, Andrew Ng, and Christopher Potts. 2013. Recursive deep models for semantic compositionality over a sentiment treebank. In *Proceedings of the 2013 conference on empirical methods in natural language processing*. 1631–1642.
- [39] Jeong-Woo Son, A Kim, Seong-Bae Park, et al. 2013. A location-based news article recommendation with explicit localized semantic analysis. In *Proceedings of the 36th international ACM SIGIR conference on Research and development in information retrieval*. ACM, 293–302.
- [40] Kai Sheng Tai, Richard Socher, and Christopher D Manning. 2015. Improved semantic representations from tree-structured long short-term memory networks. *arXiv preprint arXiv:1503.00075* (2015).
- [41] Chong Wang and David M Blei. 2011. Collaborative topic modeling for recommending scientific articles. In *Proceedings of the 17th ACM SIGKDD international conference on Knowledge discovery and data mining*. ACM, 448–456.
- [42] Hongwei Wang, Jia Wang, Jialin Wang, Miao Zhao, Weinan Zhang, Fuzheng Zhang, Xing Xie, and Minyi Guo. 2018. GraphGAN: Graph Representation Learning with Generative Adversarial Nets. In *AAAI*.
- [43] Hongwei Wang, Jia Wang, Miao Zhao, Jiannong Cao, and Minyi Guo. 2017. Joint-Topic-Semantic-aware Social Recommendation for Online Voting. In *Proceedings of the 26th ACM International Conference on Conference on Information and Knowledge Management*. ACM, 347–356.
- [44] Hao Wang, Naiyan Wang, and Dit-Yan Yeung. 2015. Collaborative deep learning for recommender systems. In *Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. ACM, 1235–1244.
- [45] Hongwei Wang, Fuzheng Zhang, Min Hou, Xing Xie, Minyi Guo, and Qi Liu. 2018. Shine: Signed heterogeneous information network embedding for sentiment link prediction. In *WSDM*.
- [46] Jin Wang, Zhongyuan Wang, Dawei Zhang, and Jun Yan. 2017. Combining Knowledge with Deep Convolutional Neural Networks for Short Text Classification. In *Proceedings of the International Joint Conference on Artificial Intelligence*.
- [47] Xuejian Wang, Lantao Yu, Kan Ren, Guanyu Tao, Weinan Zhang, Yong Yu, and Jun Wang. 2017. Dynamic Attention Deep Model for Article Recommendation by Learning Human Editors’ Demonstration. In *KDD*. ACM.
- [48] Zhen Wang, Jianwen Zhang, Jianlin Feng, and Zheng Chen. 2014. Knowledge Graph Embedding by Translating on Hyperplanes. In *AAAI*. 1112–1119.
- [49] Chang Xu, Yalong Bai, Jiang Bian, Bin Gao, Gang Wang, Xiaoguang Liu, and Tie-Yan Liu. 2014. Rc-net: A general framework for incorporating knowledge into word representations. In *Proceedings of the 23rd ACM International Conference on Conference on Information and Knowledge Management*. ACM, 1219–1228.
- [50] Hong-Jian Xue, Xin-Yu Dai, Jianbing Zhang, Shujian Huang, and Jiajun Chen. 2017. Deep Matrix Factorization Models for Recommender Systems. In *Proceedings of the 26th International Joint Conference on Artificial Intelligence*.
- [51] Bishan Yang and Tom Mitchell. 2017. Leveraging knowledge bases in lstm for improving machine reading. In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, Vol. 1.
- [52] Fuzheng Zhang, Nicholas Jing Yuan, Defu Lian, Xing Xie, and Wei-Ying Ma. 2016. Collaborative knowledge base embedding for recommender systems. In *KDD*. ACM, 353–362.
- [53] Xiang Zhang, Junbo Zhao, and Yann LeCun. 2015. Character-level convolutional networks for text classification. In *NIPS*. 649–657.
- [54] Guorui Zhou, Chengru Song, Xiaoqiang Zhu, Xiao Ma, Yanghui Yan, Xingya Dai, Han Zhu, Junqi Jin, Han Li, and Kun Gai. 2017. Deep Interest Network for Click-Through Rate Prediction. *arXiv preprint arXiv:1706.06978* (2017).