DAFTAR PUSTAKA

[1]   G. Xu, Z. Tang, C. Ma, Y. Liu, and M. Daneshmand, "A collaborative filtering recommendation algorithm based on user confidence and time context," *J. Electr. Comput. Eng.*, vol. 2019, 2019, doi: 10.1155/2019/7070487.

[2]   J. Feng, X. Fengs, N. Zhang, and J. Peng, "An improved collaborative filtering method based on similarity," *PLoS One*, vol. 13, no. 9, pp. 1–18, 2018, doi: 10.1371/journal.pone.0204003.

[3]   X. Zhang, X. Chen, D. Seng, and X. Fang, "A Factored Similarity Model with Trust and Social Influence for Top-N Recommendation," *Int. J. Comput. Commun. Control*, vol. 14, no. 4, pp. 590–607, 2019, doi: 10.15837/ijccc.2019.4.3577.

[4]   H. Liu, Z. Hu, A. Mian, H. Tian, and X. Zhu, "A new user similarity model to improve the accuracy of collaborative filtering," *Knowledge-Based Syst.*, vol. 56, pp. 156–166, 2014, doi: 10.1016/j.knosys.2013.11.006.

[5]   L. A. Gonzalez Camacho and S. N. Alves-Souza, "Social network data to alleviate cold-start in recommender system: A systematic review," *Inf. Process. Manag.*, vol. 54, no. 4, pp. 529–544, 2018, doi: 10.1016/j.ipm.2018.03.004.

[6]   G. Li, Z. Zhang, L. Wang, Q. Chen, and J. Pan, "One-class collaborative filtering based on rating prediction and ranking prediction," *Knowledge-Based Syst.*, vol. 124, pp. 46–54, 2017, doi: 10.1016/j.knosys.2017.02.034.

[7]   A. K. Sahu and P. Dwivedi, "User profile as a bridge in cross-domain recommender systems for sparsity reduction," *Appl. Intell.*, vol. 49, no. 7, pp. 2461–2481, 2019, doi: 10.1007/s10489-018-01402-3.

[8]   P. Kumar, V. Kumar, and R. S. Thakur, "A new approach for rating prediction system using collaborative filtering," *Iran J. Comput. Sci.*, vol. 2, no. 2, pp. 81–87, 2019, doi: 10.1007/s42044-018-00028-5.

[9]   A. Laishram and V. Padmanabhan, "Discovery of user-item subgroups via genetic algorithm for effective prediction of ratings in collaborative filtering," *Appl. Intell.*, vol. 49, no. 11, pp. 3990–4006, 2019, doi: 10.1007/s10489-019-01495-4.

[10]   A. Laishram, V. Padmanabhan, and R. P. Lal, "Analysis of similarity measures in user-item subgroup based collaborative filtering via genetic algorithm," *Int. J. Inf. Technol.*, vol. 10, no. 4, pp. 523–527, 2018, doi: 10.1007/s41870-018-0195-z.

[11]   R. Katarya, "Movie recommender system with metaheuristic artificial bee," *Neural Comput. Appl.*, vol. 30, no. 6, pp. 1983–1990, 2018, doi: 10.1007/s00521-017-3338-4.

[12]   G. Li and W. Ou, "Pairwise probabilistic matrix factorization for implicit feedback collaborative filtering," *Neurocomputing*, vol. 204, pp. 17–25, 2016, doi: 10.1016/j.neucom.2015.08.129.

[13]   S. Alonso, J. Bobadilla, F. Ortega, and R. Moya, "Robust Model-Based Reliability Approach to Tackle Shilling Attacks in Collaborative Filtering Recommender Systems," *IEEE Access*, vol. 7, pp. 41782–41798, 2019, doi: 10.1109/ACCESS.2019.2905862.

[14]   A. Salah, N. Rogovschi, and M. Nadif, "A dynamic collaborative filtering system via a weighted clustering approach," *Neurocomputing*, vol. 175, pp. 206–215, 2015, doi: 10.1016/j.neucom.2015.10.050.

[15]   R. Wang, H. K. Cheng, Y. Jiang, and J. Lou, "A novel matrix factorization model for recommendation with LOD-based semantic similarity measure," *Expert Syst. Appl.*, vol. 123, pp. 70–81, 2019, doi: 10.1016/j.eswa.2019.01.036.

[16]   N. E. I. Karabadji, S. Beldjoudi, H. Seridi, S. Aridhi, and W. Dhifli, "Improving memory-based user collaborative filtering with evolutionary multi-objective

optimization," *Expert Syst. Appl.*, vol. 98, pp. 153–165, 2018, doi: 10.1016/j.eswa.2018.01.015.

[17] J. Wei, J. He, K. Chen, Y. Zhou, and Z. Tang, "Collaborative filtering and deep learning based recommendation system for cold start items," *Expert Syst. Appl.*, vol. 69, pp. 29–39, 2017, doi: 10.1016/j.eswa.2016.09.040.

[18] Q. Y. Hu, Z. L. Zhao, C. D. Wang, and J. H. Lai, "An item orientated recommendation algorithm from the multi-view perspective," *Neurocomputing*, vol. 269, pp. 261–272, 2017, doi: 10.1016/j.neucom.2016.12.102.

[19] B. K. Patra, R. Launonen, V. Ollikainen, and S. Nandi, "A new similarity measure using Bhattacharyya coefficient for collaborative filtering in sparse data," *Knowledge-Based Syst.*, vol. 82, pp. 163–177, 2015, doi: 10.1016/j.knosys.2015.03.001.

[20] H. Hwangbo and Y. Kim, "An empirical study on the effect of data sparsity and data overlap on cross domain collaborative filtering performance," *Expert Syst. Appl.*, vol. 89, pp. 254–265, 2017, doi: 10.1016/j.eswa.2017.07.041.

[21] J. Zhang, Y. Lin, M. Lin, and J. Liu, "An effective collaborative filtering algorithm based on user preference clustering," *Appl. Intell.*, vol. 45, no. 2, pp. 230–240, 2016, doi: 10.1007/s10489-015-0756-9.

[22] L. Yue, X. X. Sun, W. Z. Gao, G. Z. Feng, and B. Z. Zhang, "Multiple Auxiliary Information Based Deep Model for Collaborative Filtering," *J. Comput. Sci. Technol.*, vol. 33, no. 4, pp. 668–681, 2018, doi: 10.1007/s11390-018-1848-x.

[23] J. Shu, X. Shen, H. Liu, B. Yi, and Z. Zhang, "A content-based recommendation algorithm for learning resources," *Multimed. Syst.*, vol. 24, no. 2, pp. 163–173, 2018, doi: 10.1007/s00530-017-0539-8.

[24] W. Li, X. Li, M. Yao, J. Jiang, and Q. Jin, "Personalized fitting recommendation based on support vector regression," *Human-centric Comput. Inf. Sci.*, vol. 5, no. 21, pp. 1–13, 2015, doi: 10.1186/s13673-015-0041-2.

[25] X. Yu, Y. Chu, F. Jiang, Y. Guo, and D. Gong, "SVMs Classification Based Two-side Cross Domain Collaborative Filtering by inferring intrinsic user and item features," *Knowledge-Based Syst.*, vol. 141, pp. 80–91, 2018, doi: 10.1016/j.knosys.2017.11.010.

[26] Y. Park, S. Park, W. Jung, and S. G. Lee, "Reversed CF: A fast collaborative filtering algorithm using a k-nearest neighbor graph," *Expert Syst. Appl.*, vol. 42, no. 8, pp. 4022–4028, 2015, doi: 10.1016/j.eswa.2015.01.001.

[27] Y. Hu, F. Xiong, D. Lu, X. Wang, X. Xiong, and H. Chen, "Movie collaborative filtering with multiplex implicit feedbacks," *Neurocomputing*, vol. 13, no. 46, 2019, doi: 10.1016/j.neucom.2019.03.098.

[28] B. Ait Hammou and A. Ait Lahcen, "FRAIPA: A fast recommendation approach with improved prediction accuracy," *Expert Syst. Appl.*, vol. 87, pp. 90–97, 2017, doi: 10.1016/j.eswa.2017.06.001.

[29] J. Deng, J. Guo, and Y. Wang, "A Novel K-medoids clustering recommendation algorithm based on probability distribution for collaborative filtering," *Knowledge-Based Syst.*, vol. 175, pp. 96–106, 2019, doi: 10.1016/j.knosys.2019.03.009.

[30] R. C. Bagher, H. Hassanpour, and H. Mashayekhi, "User trends modeling for a content-based recommender system," *Expert Syst. Appl.*, vol. 87, pp. 209–219, 2017, doi: 10.1016/j.eswa.2017.06.020.

[31] S. Wang, S. Huang, T. Y. Liu, J. Ma, Z. Chen, and J. Veijalainen, "Ranking-oriented collaborative filtering: A listwise approach," *ACM Trans. Inf. Syst.*, vol. 35, no. 2, 2016, doi: 10.1145/2960408.

[32]   P. Koskela, *Comparing Ranking-Based Collaborative Filtering Algorithms To A Rating-Based Alternative in Recommender Systems Context*. 2017. [Online]. Available: https://jyx.jyu.fi/dspace/handle/123456789/54905#%0Ahttps://jyx.jyu.fi/dspace/bitstream/handle/123456789/54905/URN%3ANBN%3Afi%3Ajyu-201707103285.pdf?sequence=1

[33]   Y. Shi, M. Larson, and A. Hanjalic, "Unifying rating-oriented and ranking-oriented collaborative filtering for improved recommendation," *Inf. Sci. (Ny).*, vol. 229, pp. 29–39, 2013, doi: 10.1016/j.ins.2012.12.002.

[34]   S. Chen and Y. Peng, "Matrix factorization for recommendation with explicit and implicit feedback," *Knowledge-Based Syst.*, vol. 158, pp. 109–117, 2018, doi: 10.1016/j.knosys.2018.05.040.

[35]   U. Ocepek, J. Rugelj, and Z. Bosnić, "Improving matrix factorization recommendations for examples in cold start," *Expert Syst. Appl.*, vol. 42, no. 19, pp. 6784–6794, 2015, doi: 10.1016/j.eswa.2015.04.071.

[36]   K. Ji, R. Sun, X. Li, and W. Shu, "Improving matrix approximation for recommendation via a clustering-based reconstructive method," *Neurocomputing*, vol. 173, pp. 912–920, 2016, doi: 10.1016/j.neucom.2015.08.046.

[37]   M. Singh and M. Mehrotra, "Impact of biclustering on the performance of Biclustering based Collaborative Filtering," *Expert Syst. Appl.*, vol. 113, pp. 443–456, 2018, doi: 10.1016/j.eswa.2018.06.001.

[38]   D. Valcarce, J. Parapar, and Á. Barreiro, "Finding and analysing good neighbourhoods to improve collaborative filtering," *Knowledge-Based Syst.*, vol. 159, no. January, pp. 193–202, 2018, doi: 10.1016/j.knosys.2018.06.030.

[39]   J. Liu and Y. Chen, "A personalized clustering-based and reliable trust-aware QoS prediction approach for cloud service recommendation in cloud manufacturing," *Knowledge-Based Syst.*, vol. 174, pp. 43–56, 2019, doi: 10.1016/j.knosys.2019.02.032.

[40]   X. Ma, H. Lu, Z. Gan, and Q. Zhao, "An exploration of improving prediction accuracy by constructing a multi-type clustering based recommendation framework," *Neurocomputing*, vol. 191, pp. 388–397, 2016, doi: 10.1016/j.neucom.2016.01.040.

[41]   C. Tran, J. Y. Kim, W. Y. Shin, and S. W. Kim, "Clustering-Based Collaborative Filtering Using an Incentivized/Penalized User Model," *IEEE Access*, vol. 7, pp. 62115–62125, 2019, doi: 10.1109/ACCESS.2019.2914556.

[42]   J. Bobadilla, R. Bojorque, A. H. Esteban, and R. Hurtado, "Recommender systems clustering using Bayesian non negative matrix factorization," *IEEE Access*, vol. 6, pp. 3549–3564, 2018, doi: 10.1109/ACCESS.2017.2788138.

[43]   T. Vander Aa, I. Chakroun, and T. Haber, "Distributed Bayesian Probabilistic Matrix Factorization," *Procedia Comput. Sci.*, vol. 108, pp. 1030–1039, 2017, doi: 10.1016/j.procs.2017.05.009.

[44]   R. Zhang and Y. Mao, "Movie Recommendation via Markovian Factorization of Matrix Processes," *IEEE Access*, vol. 7, pp. 13189–13199, 2019, doi: 10.1109/ACCESS.2019.2892289.

[45]   Z. Xian, Q. Li, G. Li, and L. Li, "New Collaborative Filtering Algorithms Based on SVD++ and Differential Privacy," *Math. Probl. Eng.*, vol. 33, pp. 2133–2144, 2017, doi: 10.3233/JIFS-162053.

[46]   X. Guan, C. T. Li, and Y. Guan, "Matrix Factorization with Rating Completion: An Enhanced SVD Model for Collaborative Filtering Recommender Systems," *IEEE Access*, vol. 5, pp. 27668–27678, 2017, doi:

10.1109/ACCESS.2017.2772226.

[47] M. Kherad and A. J. Bidgoly, "Recommendation system using a deep learning and graph analysis approach," *arXiv*, pp. 1–11, 2020.

[48] Z. Li, H. Chen, K. Lin, V. Shakhov, and L. Shi, "Double Attention-based Deformable Convolutional Network for Recommendation," no. Iccc, pp. 1051–1056, 2020, doi: 10.1109/iccc49849.2020.9238819.

[49] B. Shams and S. Haratizadeh, "Item-based collaborative ranking," *Knowledge-Based Syst.*, vol. 152, pp. 172–185, 2018, doi: 10.1016/j.knosys.2018.04.012.

[50] P. Yu, "Collaborative filtering recommendation algorithm based on both user and item," *Proc. 2015 4th Int. Conf. Comput. Sci. Netw. Technol. ICCSNT 2015*, no. Iccsnt, pp. 239–243, 2016, doi: 10.1109/ICCSNT.2015.7490744.

[51] M. Sharma and S. Mann, "A Survey of Recommender Systems : Approaches and Limitations," *Int. J. Innov. Eng. Technol.*, vol. 33, pp. 1–9, 2013, [Online]. Available:
https://pdfs.semanticscholar.org/fa41/dc4b60eccedf1c41e2ae488044827dd79384.pdf

[52] C. Sardianos, G. B. Papadatos, and I. Varlamis, "Optimizing parallel collaborative filtering approaches for improving recommendation systems performance," *Inf.*, vol. 10, no. 5, 2019, doi: 10.3390/info10050155.

[53] V. Vellaichamy and V. Kalimuthu, "Hybrid collaborative movie recommender system using clustering and bat optimization," *Int. J. Intell. Eng. Syst.*, vol. 10, no. 5, pp. 38–47, 2017, doi: 10.22266/ijies2017.1031.05.

[54] S. Lestari, T. B. Adji, and A. E. Permanasari, "WP-Rank : Rank Aggregation based Collaborative Filtering Method in Recommender System," *Int. J. Eng. Technol.*, vol. 7, pp. 193–197, 2018.

[55] V. Strnadova-Neeley, A. Buluc, J. R. Gilbert, L. Oliker, and W. Ouyang, "LiRa: A New Likelihood-Based Similarity Score for Collaborative Filtering," no. August, 2016, [Online]. Available: http://arxiv.org/abs/1608.08646

[56] N. Polatidis and C. K. Georgiadis, "A multi-level collaborative filtering method that improves recommendations," *Expert Syst. Appl.*, vol. 48, pp. 100–121, 2016, doi: 10.1016/j.eswa.2015.11.023.

[57] S. B. Sun *et al.*, "Integrating triangle and jaccard similarities for recommendation," *PLoS One*, vol. 12, no. 8, 2017, doi: 10.1371/journal.pone.0183570.

[58] C. Wu *et al.*, "Recommendation algorithm based on user score probability and project type," *Eurasip J. Wirel. Commun. Netw.*, vol. 2019, no. 1, 2019, doi: 10.1186/s13638-019-1385-5.

[59] O. U. Ugbomhe, E. O. P, and S. S. Adomokhai, "Effects of Demographic Factors on Impulse Buying Behaviour of Consumers in Auchi, Edo State, Nigeria," *J. Econ. Bus.*, vol. 4, no. 2, 2021, doi: 10.31014/aior.1992.04.02.350.

[60] N. A. Omar, M. A. Nazri, L. H. Osman, and M. S. Ahmad, "The effect of demographic factors on consumer intention to purchase organic products in the Klang Valley : An empirical study," vol. 2, no. 2, pp. 68–82, 2016.

[61] N. B. H. Reddy and A. S. -, "Impact of Demographic Factors of Indian Consumers on," *Int. J. Account. Bus. Manag.*, vol. 4, no. 2, pp. 310–317, 2015, doi: 10.24924/ijabm/2015.04/v3.iss1/310.317.

[62] B. K. Sharma and S. Parmar, "Impact of Demographic Factors on Online Purchase Intention Through Social Media- With Reference To Pune , Maharashtra," vol. 05, no. 01, pp. 45–50, 2018.

[63] M. Y. H. Al-Shamri, "User profiling approaches for demographic recommender systems," *Knowledge-Based Syst.*, vol. 100, pp. 175–187, 2016, doi:

10.1016/j.knosys.2016.03.006.

[64] A. Yassine and L. Mohamed, "Intelligent recommender system based on unsupervised machine learning and demographic attributes," *Simul. Model. Pract. Theory*, vol. 107, no. May 2020, p. 102198, 2020, doi: 10.1016/j.simpat.2020.102198.

[65] T. GARG and A. MALIK, "Survey on Various Enhanced K-Means Algorithms," *Ijarcce*, vol. 3, no. 11, pp. 8525–8527, 2014, doi: 10.17148/ijarcce.2014.31138.

[66] B. B. M, "Enhanced K-Means Clustring Algorithm To Reduce Time Complexity for Numeric Values," *Int. J. Adv. Eng. Res. Dev.*, vol. 1, no. 06, pp. 876–879, 2014, doi: 10.21090/ijaerd.010520.

[67] H. Jiawei, K. Micheline, and P. Jian, *Data Mining : Concepts and Techniques Preface and Introduction*. New York: Elsevier, 2012.

[68] S. Ghosh and S. Kumar, "Comparative Analysis of K-Means and Fuzzy C-Means Algorithms," *Int. J. Adv. Comput. Sci. Appl.*, vol. 4, no. 4, pp. 35–39, 2013, doi: 10.14569/ijacsa.2013.040406.

[69] F. Ricci, L. Rokach, B. Shapira, and P. B. Kantor, *Recommender Systems Handbook*. New York: Springer, 2015. doi: 10.1007/978-1-4899-7637-6.

[70] P. Vilakone, K. Xinchang, and D. S. Park, "Movie recommendation system based on users' personal information and movies rated using the method of k-clique and normalized discounted cumulative gain," *J. Inf. Process. Syst.*, vol. 16, no. 2, pp. 494–507, 2020, doi: 10.3745/JIPS.04.0169.

[71] F. Zhang, S. Qi, Q. Liu, M. Mao, and A. Zeng, "Alleviating the data sparsity problem of recommender systems by clustering nodes in bipartite networks," *Expert Syst. Appl.*, vol. 149, p. 113346, 2020, doi: 10.1016/j.eswa.2020.113346.

[72] P. Phorasim and L. Yu, "Movies recommendation system using collaborative filtering and k-means," *Int. J. Adv. Comput. Res.*, vol. 7, no. 29, pp. 52–59, 2017, doi: 10.19101/IJACR.2017.729004.

[73] C. C. Aggarwal, *Recommender Systems*, vol. 40, no. 3. New York: Springer, 2016. doi: 10.1145/245108.245121.

[74] H. A. Id, M. A. Abdulgabber, A. Romli, and H. Kahtan, "An improved memory-based collaborative filtering method based on the TOPSIS technique," *PLoS One*, vol. 13, no. 10, pp. 1–26, 2018, doi: https://doi.org/10.1371/journal.pone.0204434.

[75] H. Koohi and K. Kiani, "A new method to find neighbor users that improves the performance of Collaborative Filtering," *Expert Syst. Appl.*, vol. 83, pp. 30–39, 2017, doi: 10.1016/j.eswa.2017.04.027.

[76] X. Zhao, W. Chen, F. Yang, and Z. Liu, "Improving Diversity of User-Based Two-Step Recommendation Algorithm with Popularity Normalization," vol. 4, pp. 15–26, doi: 10.1007/978-3-319-32055-7.

[77] M. Duma and B. Twala, "Sparseness reduction in collaborative filtering using a nearest neighbour artificial immune system with genetic algorithms," *Expert Syst. Appl.*, vol. 132, pp. 110–125, 2019, doi: 10.1016/j.eswa.2019.04.034.

[78] F. Ortega, J. Mayor, D. López-Fernández, and R. Lara-Cabrera, "CF4J 2.0: Adapting Collaborative Filtering for Java to new challenges of collaborative filtering based recommender systems," *Knowledge-Based Syst.*, p. 106629, 2020, doi: 10.1016/j.knosys.2020.106629.

[79] M. Nasiri and B. Minaei, "Increasing prediction accuracy in collaborative filtering with initialized factor matrices," *J. Supercomput.*, vol. 72, no. 6, pp. 2157–2169, 2016, doi: 10.1007/s11227-016-1717-8.

[80] B. Alhijawi, G. Al-Naymat, N. Obeid, and A. Awajan, "Novel predictive model to improve the accuracy of collaborative filtering recommender systems," *Inf. Syst.*,

vol. 96, p. 101670, 2021, doi: 10.1016/j.is.2020.101670.

[81] Y. Mu, N. Xiao, R. Tang, L. Luo, and X. Yin, "An Efficient Similarity Measure for Collaborative Filtering," *Procedia Computer Science*, vol. 147. pp. 416–421, 2019. doi: 10.1016/j.procs.2019.01.258.

[82] S. Ghazarian and M. A. Nematbakhsh, "Enhancing memory-based collaborative filtering for group recommender systems," *Expert Syst. Appl.*, vol. 42, no. 7, pp. 3801–3812, 2015, doi: 10.1016/j.eswa.2014.11.042.

[83] J. Hu, J. Liang, Y. Kuang, and V. Honavar, "A user similarity-based Top- N recommendation approach for mobile in-application advertising," vol. 111, pp. 51–60, 2018, doi: 10.1016/j.eswa.2018.02.012.

[84] M. Ayub *et al.*, "Modeling user rating preference behavior to improve the performance of the collaborative filtering based recommender systems," *PLoS One*, vol. 14, no. 8, p. e0220129, 2019, doi: 10.1371/journal.pone.0220129.

[85] T. Li, L. Jin, Z. Wu, and Y. Chen, "Combined recommendation algorithm based on improved similarity and forgetting curve," *Inf.*, vol. 10, no. 4, 2019, doi: 10.3390/info10040130.

[86] S. C. Kim, K. J. Sung, C. S. Park, and S. K. Kim, "Improvement of collaborative filtering using rating normalization," *Multimed. Tools Appl.*, vol. 75, no. 9, pp. 4957–4968, 2016, doi: 10.1007/s11042-013-1814-0.

[87] F. Zhang, W. Zhou, L. Sun, X. Lin, H. Liu, and Z. He, "Improvement of Pearson similarity coefficient based on item frequency," *Int. Conf. Wavelet Anal. Pattern Recognit.*, vol. 1, pp. 248–253, 2017, doi: 10.1109/ICWAPR.2017.8076697.

[88] R. Indhu and R. Porkodi, "Comparison of Clustering Algorithm," vol. 3, no. 1, pp. 218–223, 2018.

[89] S. (KASIT) Awawdeh, A. (KASIT) Edinat, and A. (KASIT) Sleit, "An Enhanced K-means Clustering Algorithm for Multi- attributes Data," *Int. J. Comput. Sci. Inf. Secur.*, vol. 17, no. 2, 2019.

[90] U. R. Raval and C. Jani, "Implementing & Improvisation of K-means Clustering Algorithm," *Int. J. Comput. Sci. Mob. Comput.*, vol. 55, no. 5, pp. 191–203, 2016, [Online]. Available: http://www.ijcsmc.com/docs/papers/May2016/V5I5201647.pdf

[91] J. T. Jose, U. Zachariah, V. P. Lijo, L. J. Gnanasigamani, and J. Mathew, "Case study on enhanced K-means algorithm for bioinformatics data clustering," *Int. J. Appl. Eng. Res.*, vol. 12, no. 24, pp. 15147–15151, 2017.

[92] G. G.G and S. K, "Improved Optimization centroid in modified Kmeans cluster," *Int. J. Eng. Technol.*, vol. 9, no. 2, pp. 1511–1517, 2017, doi: 10.21817/ijet/2017/v9i2/170902224.

[93] C. Aggarwal and C. Reddy, *Data Clustering: Algorithms and Applications*. Taylor & Francis Group, LLC, 2014.

[94] M. Mittal, R. K. Sharma, and V. P. Singh, "Validation of k -means and Threshold based Clustering Method," *Int. J. Adv. Technol.*, vol. 5, no. 2, pp. 153–160, 2014.

[95] M. J. W. M. J. Zaki, *Data Mining and Analysis: Fundamental Concepts and Algorithms*. 2014. doi: 10.1145/3054925.

[96] D. Z. Ulian, J. L. Becker, C. B. Marcolin, and E. Scornavacca, "Exploring the effects of different Clustering Methods on a News Recommender System," *Expert Syst. Appl.*, vol. 183, no. April, p. 115341, 2021, doi: 10.1016/j.eswa.2021.115341.

[97] B. Aubaidan, M. Mohd, M. Albared, and F. Author, "Comparative study of k-means and k-means++ clustering algorithms on crime domain," *J. Comput. Sci.*, vol. 10, no. 7, pp. 1197–1206, 2014, doi: 10.3844/jcssp.2014.1197.1206.

[98] Suyanto, *Data Mining untuk Klasifikasi dan Klasterisasi Data*. Bandung:

Informatika Bandung, 2017.

[99] O. Arbelaitz, I. Gurrutxaga, J. Muguerza, J. M. Pérez, and I. Perona, "An extensive comparative study of cluster validity indices," *Pattern Recognit.*, vol. 46, no. 1, pp. 243–256, Jan. 2013, doi: 10.1016/j.patcog.2012.07.021.

[100] M. Jalili, S. Ahmadian, M. Izadi, P. Moradi, and M. Salehi, "Evaluating Collaborative Filtering Recommender Algorithms: A Survey," *IEEE Access*, vol. 6, pp. 74003–74024, 2018, doi: 10.1109/ACCESS.2018.2883742.

[101] F. Zhang, T. Gong, V. E. Lee, G. Zhao, C. Rong, and G. Qu, "Fast algorithms to evaluate collaborative filtering recommender systems," *Knowledge-Based Syst.*, vol. 96, pp. 96–103, 2016, doi: 10.1016/j.knosys.2015.12.025.

[102] M. Zheng, F. Min, H. R. Zhang, and W. Bin Chen, "Fast Recommendations with the M-Distance," *IEEE Access*, vol. 4, pp. 1464–1468, 2016, doi: 10.1109/ACCESS.2016.2549182.

[103] V. K. Sejwal, M. Abulaish, and Jahiruddin, "Crecsys: A context-based recommender system using collaborative filtering and lod," *IEEE Access*, vol. 8, pp. 158432–158448, 2020, doi: 10.1109/ACCESS.2020.3020005.

[104] X. Fan, Z. Chen, L. Zhu, Z. Liao, and B. Fu, "A Novel Hybrid Similarity Calculation Model," *Sci. Program.*, vol. 2017, 2017, doi: 10.1155/2017/4379141.

[105] S. Bansal and N. Baliyan, "A study of recent recommender system techniques," *Int. J. Knowl. Syst. Sci.*, vol. 10, no. 2, pp. 13–41, 2019, doi: 10.4018/IJKSS.2019040102.

[106] F. M. Harper and J. A. Konstan, "The movielens datasets: History and context," *ACM Trans. Interact. Intell. Syst.*, vol. 5, no. 4, 2015, doi: 10.1145/2827872.

[107] M. Kuhn and K. Johnson, *Applied predictive modeling*. New York: Springer London, 2013. doi: 10.1007/978-1-4614-6849-3.

[108] D. Wang, Y. Yih, and M. Ventresca, "Improving neighbor-based collaborative filtering by using a hybrid similarity measurement," *Expert Syst. Appl.*, vol. 160, p. 113651, 2020, doi: 10.1016/j.eswa.2020.113651.

[109] T. Widiyaningtyas, I. Hidayah, and T. B. Adji, "User profile correlation-based similarity (UPCSim) algorithm in movie recommendation system," *J. Big Data*, vol. 8, no. 1, 2021, doi: 10.1186/s40537-021-00425-x.

[110] Z. Su, Z. Lin, J. Ai, and H. Li, "Rating Prediction in Recommender Systems based on User Behavior Probability and Complex Network Modeling," *IEEE Access*, pp. 30739–30749, 2021, doi: 10.1109/ACCESS.2021.3060016.

[111] S. M. Ross, *Introduction to Probability and Statistics for Engineers and Scientists*, Third edit. New York: Elsevier Academic Press, 2004.

[112] D. P. Solomatine and A. Ostfeld, "Data-driven modelling: Some past experiences and new approaches," *J. Hydroinformatics*, vol. 10, no. 1, pp. 3–22, 2008, doi: 10.2166/hydro.2008.015.

[113] A. Buchadas *et al.*, "Dynamic models in research and management of biological invasions," *J. Environ. Manage.*, vol. 196, pp. 594–606, 2017, doi: 10.1016/j.jenvman.2017.03.060.

[114] L. V. Nguyen, M. S. Hong, J. J. Jung, and B. S. Sohn, "Cognitive similarity-based collaborative filtering recommendation system," *Appl. Sci.*, vol. 10, no. 12, pp. 1–14, 2020, doi: 10.3390/APP10124183.

[115] L. V. Nguyen, T. H. Nguyen, J. J. Jung, and D. Camacho, "Extending collaborative filtering recommendation using word embedding: A hybrid approach," *Concurr. Comput.*, no. November 2020, pp. 1–11, 2021, doi: 10.1002/cpe.6232.

[116] R. Logesh, V. Subramaniyaswamy, D. Malathi, N. Sivaramakrishnan, and V. Vijayakumar, "Enhancing recommendation stability of collaborative filtering

recommender system through bio-inspired clustering ensemble method," *Neural Comput. Appl.*, vol. 32, no. 7, pp. 2141–2164, 2020, doi: 10.1007/s00521-018-3891-5.

[117] J. Ai, Z. Su, K. Wang, C. Wu, and D. Peng, "Decentralized Collaborative Filtering Algorithms Based on Complex Network Modeling and Degree Centrality," *IEEE Access*, vol. 8, pp. 151242–151249, 2020, doi: 10.1109/ACCESS.2020.3017701.