## **Bibliography**

- [And+00] Ion Androutsopoulos et al. "An Evaluation of Naive Bayesian Anti-Spam Filtering". In: European Conference on Machine Learning (2000), pp. 9–17. ISSN: 01635840. DOI: 10.1109/IAW.2007.381951. arXiv: 0006013 [cs]. URL: http://arxiv.org/abs/cs/0006013.
- [Aus68] D P Ausubel. Educational Psychology: A Cognitive View. 1968, p. 685. ISBN: 0030899516.
  DOI: 10.1107/S010827019000508X.
- [BK05] K.M. Borgwardt and H. Kriegel. "Shortest-Path Kernels on Graphs". In: Fifth IEEE International Conference on Data Mining (ICDM'05) (2005), pp. 74–81. ISSN: 1550-4786. DOI: 10.1109/ICDM.2005.132.
- [Bri78] Bruce K. Britton. "Lexical ambiguity of words used in english text". In: *Behavior Research Methods & Instrumentation* 10.1 (1978), pp. 1–7. ISSN: 1554351X. DOI: 10.3758/BF03205079.
- [Cac07] Ana Margarida De Jesus Cardoso Cachopo. "Improving Methods for Single-label Text Categorization". In: (2007), p. 167. DOI: 10.1002/cplx. URL: http://web.ist.utl.pt/acardoso/.
- [Cas14] Richard Eckart de Castilho. "Natural Language Processing: Integration of Automatic and Manual Analysis". In: (2014), p. 205.
- [Cho03] Gobinda G. Chowdhury. "Natural Language Processing". In: *Annual Review of Applied Linguistics* 37.1 (2003), pp. 51–89. ISSN: 0267-1905. DOI: 10.1017/S0267190500001446. arXiv: 0812.0143v2.
- [CV95] Corinna Cortes and Vladimir Vapnik. "Support-Vector Networks". In: *Machine Learning* 20.3 (1995), pp. 273–297. ISSN: 15730565. DOI: 10.1023/A:1022627411411. arXiv: arXiv: 1011.1669v3.
- [DOL15] Andrew M. Dai, Christopher Olah, and Quoc V. Le. "Document Embedding with Paragraph Vectors". In: (2015), pp. 1–8. arXiv: 1507.07998. URL: http://arxiv.org/abs/1507.07998.
- [Dou11] Brendan L Douglas. "The Weisfeiler-Lehman Method and Graph Isomorphism Testing". In: *ArXiv* (2011), pp. 1–43. arXiv: arXiv:1101.5211v1.
- [FG17] Tobias Falke and Iryna Gurevych. "Concept-Map-Based Multi-Document Summarization using Concept Co-Reference Resolution and Global Importance Optimization". In: (2017), pp. 1–10.
- [Fis25] Ronald Aylmer Fisher. "Statistical Methods for Research Workers". In: (1925), p. 362. ISSN: 15334406. DOI: 10.1056/NEJMc061160. arXiv: 0-05-002170-2.
- [For03] George Forman. "An Extensive Empirical Study of Feature Selection Metrics for Text Classification". In: *Journal of Machine Learning Research* 3 (2003), pp. 1289–1305. ISSN: 15324435. DOI: 10.1162/153244303322753670.
- [Gär03] Thomas Gärtner. "A survey of kernels for structured data". In: ACM SIGKDD Explorations Newsletter 5.1 (2003), p. 49. ISSN: 19310145. DOI: 10.1145/959242.959248. URL: http://portal.acm.org/citation.cfm?doid=959242.959248.
- [GB01] Arnulf B a Graf and Silvio Borer. "Normalization in Support Vector Machines". In: *Neural Computation* 13 (2001), pp. 277–282. DOI: 10.1007/3-540-45404-7\_37. URL: http://www.springerlink.com/index/q3068112g9332857.pdf.

1

- [GB15] Chetna Gulrandhe and Chetan Bawankar. "Concept Graph Preserving Semantic Relationship for Biomedical Text Categorization". In: *International Journal Of Computer Science And Applications* 8.1 (2015), pp. 9–12.
- [GGQ11] Miguel Gaspar, T Gonçalves, and Paulo Quaresma. "Text classification using semantic information and graph kernels". In: *EPIA-11, 15th Portuguese Conference on Artificial Intelligence* (2011). URL: http://www.di.uevora.pt/%7B~%7Dpq/papers/epia2011a.pdf.
- [GL14] Yoav Goldberg and Omer Levy. "word2vec Explained: deriving Mikolov et al.'s negative-sampling word-embedding method". In: 2 (2014), pp. 1–5. ISSN: 0003-6951. DOI: 10.1162/jmlr.2003.3.4-5.951. arXiv: 1402.3722. URL: http://arxiv.org/abs/1402.3722.
- [Hal+09] Halko et al. "Finding structure with randomness: Stochastic algorithms for constructing approximate matrix decompositions". In: (2009).
- [Hau65] David Haussler. "Convolution Kernels on Discrete Structures". In: (1965), pp. 1–25.
- [Hea+17] Bradford Heap et al. "Word Vector Enrichment of Low Frequency Words in the Bag-of-Words Model for Short Text Multi-class Classification Problems". In: (2017). arXiv: 1709.05778.

  URL: http://arxiv.org/abs/1709.05778.
- [HJW15] Linus Hermansson, Fredrik D. Johansson, and Osamu Watanabe. "Generalized shortest path kernel on graphs". In: *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 9356 (2015), pp. 78–85. ISSN: 16113349. DOI: 10.1007/978-3-319-24282-8\_8. arXiv: 1510.06492.
- [HK09] Shohei Hido and Hisashi Kashima. "A linear-time graph kernel". In: *Proceedings IEEE International Conference on Data Mining, ICDM*. 2009, pp. 179–188. ISBN: 9780769538952. DOI: 10.1109/ICDM.2009.30.
- [HK11] Jan Hauke and Tomasz Kossowski. "Comparison of values of pearson's and spearman's correlation coefficients on the same sets of data". In: *Quaestiones Geographicae* 30.2 (2011), pp. 87–93. ISSN: 0137477X. DOI: 10.2478/v10117-011-0021-1.
- [HSS08] Aric A. Hagberg, Daniel A. Schult, and Pieter J. Swart. "Exploring network structure, dynamics, and function using NetworkX". In: *Proceedings of the 7th Python in Science Conference (SciPy 2008)* SciPy (2008), pp. 11–15. ISSN: 1540-9295.
- [Jai10] Anil K. Jain. "Data clustering: 50 years beyond K-means". In: Pattern Recognition Letters 31.8 (2010), pp. 651-666. ISSN: 01678655. DOI: 10.1016/j.patrec.2009.09.011. arXiv: 0402594v3 [arXiv:cond-mat]. URL: http://dx.doi.org/10.1016/j.patrec.2009.09.011
- [Joa98] Thorsten Joachims. "Text Categorization with Support Vector Machines: Learning with Many Relevant Features". In: *Machine Learning* 1398.LS-8 Report 23 (1998), pp. 137–142. ISSN: 03436993. DOI: 10.1007/BFb0026683. URL: http://www.springerlink.com/index/drhq581108850171.pdf.
- [Jol02] I T Jolliffe. "Principal Component Analysis, Second Edition". In: Encyclopedia of Statistics in Behavioral Science 30.3 (2002), p. 487. ISSN: 00401706. DOI: 10.2307/1270093. arXiv: arXiv: 1011.1669v3. URL: http://onlinelibrary.wiley.com/doi/10.1002/0470013192.bsa501/full.
- [Ker+13] Kristian Kersting et al. "Power Iterated Color Refinement". In: 28th AAAI Conference on Artificial Intelligence (2013), pp. 1904–1910.
- [Ker+16] Kristian Kersting et al. Benchmark Data Sets for Graph Kernels. 2016. URL: http://graphkernels.cs.tu-dortmund.de.
- [KGK08] Viveka Kulharia, Arnab Ghosh, and Harish Karnick. "Graph Kernels". In: (2008), pp. 1201–1242. arXiv: 0807.0093. url: http://arxiv.org/abs/0807.0093.

- [KHA00] Ian M. Kinchin, David B. Hay, and Alan Adams. "How a qualitative approach to concept map analysis can be used to aid learning by illustrating patterns of conceptual development". In: *Educational Research* 42.1 (2000), pp. 43–57. ISSN: 0013-1881. DOI: 10. 1080 / 001318800363908. URL: http://www.tandfonline.com/doi/abs/10.1080/001318800363908.
- [KM12] Nils Kriege and Petra Mutzel. "Subgraph Matching Kernels for Attributed Graphs". In: (2012).
- [Koc15] Ned Kock. "One-tailed or two-tailed P values in PLS-SEM?" In: *International Journal of e-Collaboration* 11.2 (2015), pp. 1–7. ISSN: 1548-3673. DOI: 10.4018/ijec.2015040101. arXiv:/ehis.ebscohost.com/[http:].
- [Kor+08] Jacek Koronacki et al. *Machine Learning*. Vol. 262. 1. 2008, pp. 1–5. ISBN: 978-3-540-79451-6. DOI: 10.1007/978-3-540-79452-3. URL: http://link.springer.com/10.1007/978-3-642-05177-7%7B%5C%%7D5Cnhttp://link.springer.com/10.1007/978-3-540-79452-3.
- [Lan] Ken Lang. "NewsWeeder: Learning to Filter Netnews". In: ().
- [LB16] Jey Han Lau and Timothy Baldwin. "An Empirical Evaluation of doc2vec with Practical Insights into Document Embedding Generation". In: (2016). DOI: 10.18653/v1/W16-1609. arXiv: 1607.05368. URL: http://arxiv.org/abs/1607.05368.
- [Liu12] Bing Liu. "Sentiment Analysis and Opinion Mining". In: May (2012), pp. 1–108. ISSN: 1947-4040. DOI: 10.2200/S00416ED1V01Y201204HLT016. arXiv: 1003.5699.
- [Mah+05] P Mahe et al. "Graph kernels for molecular structure-activity relationship analysis with support vector machines". In: *Journal of Chemical Information and Modeling* 45.4 (2005), pp. 939–951. ISSN: 1549-9596. DOI: 10.1021/ci050039t. URL: papers2://publication/uuid/B9C49825-DCD7-45FA-9EC1-609077C1C090.
- [McK10] Wes McKinney. "Data Structures for Statistical Computing in Python". In: *Proceedings of the 9th Python in Science Conference* 1697900.Scipy (2010), pp. 51–56. ISSN: 0440877763224. URL: http://conference.scipy.org/proceedings/scipy2010/mckinney.html.
- [Meu+17] Aaron Meurer et al. "SymPy: symbolic computing in Python". In: *PeerJ Computer Science* 3 (2017), e103. ISSN: 2376-5992. DOI: 10.7717/peerj-cs.103. URL: https://peerj.com/articles/cs-103.
- [Mik+13] Tomas Mikolov et al. "Distributed Representations of Words and Phrases and their Compositionality". In: (2013), pp. 1–9. ISSN: 10495258. DOI: 10.1162/jmlr.2003.3.4-5.951. arXiv: 1310.4546. URL: http://arxiv.org/abs/1310.4546.
- [MMS99] Inderjeet Mani, Mark T Maybury, and Mark Sanderson. "Advances in Automatic Text Summarization". In: *Computational Linguistics* 26.2 (1999), pp. 280–281.
- [MS00] Christopher D Manning and Hinrich Schütze. Foundations of Natural Language Processing. 2000, p. 678. ISBN: 1420085921. DOI: 10.1162/coli.2000.26.2.277. arXiv: 0306099 [cs].
- [NB06] Michel Neuhaus and Horst Bunke. "A Random Walk Kernel Derived from Graph Edit Distance". In: *Proc. 11th Int. Workshop on Structural and Syntactic Pattern Recognition,* Im (2006), pp. 91–199. ISSN: 16113349. URL: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.90.1546.
- [NCO8] J D Novak and J Canas. "The Theory Underlying Concept Maps and How to Construct and Use Them". In: IHMC CmapTools (2008), pp. 1–36. ISSN: 1809-4398. DOI: TechnicalReportIHMCCmapTools2006 01Rev2008 01. URL: http://cmap.ihmc.us/Publications/ResearchPapers/TheoryUnderlyingConceptMaps.pdf.
- [NG84] Joseph D. Novak and D. Bob Gowin. *Learning How To Learn*. 1984, p. 199. ISBN: 9781139173469. DOI: https://doi.org/10.1017/CB09781139173469.

- [Nik+17] Giannis Nikolentzos et al. "Shortest-Path Graph Kernels for Document Similarity". In: *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing* (2017), pp. 1891–1901. URL: https://www.aclweb.org/anthology/D17-1202.
- [Nik17] Giannis Nikolentzos. "Matching Node Embeddings for Graph Similarity". In: *Proceedings of the 31th Conference on Artificial Intelligence (AAAI 2017)* (2017), pp. 2429–2435.
- [Pag+98] Lawrence Page et al. "The PageRank Citation Ranking: Bringing Order to the Web". In: World Wide Web Internet And Web Information Systems 54.1999-66 (1998), pp. 1–17. ISSN: 1752-0509. DOI: 10.1.1.31.1768. arXiv: 1111.4503v1. URL: http://ilpubs.stanford.edu:8090/422.
- [Ped+12] Fabian Pedregosa et al. "Scikit-learn: Machine Learning in Python". In: *Journal of Machine Learning Research* 12 (2012), pp. 2825–2830. ISSN: 15324435. DOI: 10.1007/s13398-014-0173-7.2. arXiv: 1201.0490. URL: http://dl.acm.org/citation.cfm?id=2078195%7B% 5C%%7D5Cnhttp://arxiv.org/abs/1201.0490.
- [PL04] Bo Pang and Lillian Lee. "A Sentimental Education: Sentiment Analysis Using Subjectivity Summarization Based on Minimum Cuts". In: (2004). ISSN: 1554-0669. DOI: 10.3115/1218955.1218990. arXiv: 0409058 [cs]. URL: http://arxiv.org/abs/cs/0409058.
- [PSM] Jeffrey Pennington, Richard Socher, and Christopher D Manning. "GloVe: Global Vectors for Word Representation". In: (). ISSN: 10495258. DOI: 10.3115/v1/D14-1162. arXiv: 1504.06654. URL: https://nlp.stanford.edu/pubs/glove.pdf.
- [RKV15] Francois Rousseau, Emmanouil Kiagias, and Michalis Vazirgiannis. "Text Categorization as a Graph Classification Problem". In: *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)* (2015), pp. 1702–1712. URL: http://www.aclweb.org/anthology/P15-1164.
- [RV13] François Rousseau and Michalis Vazirgiannis. "Graph-of-word and TW-IDF: new approach to ad hoc IR". In: 22nd ACM international conference on Conference on information & knowledge management (2013), pp. 59–68. ISSN: 1450322638. DOI: 10.1145/2505515.2505671. URL: http://dl.acm.org/citation.cfm?id=2505671.
- [SB09] Nino Shervashidze and Karsten M Borgwardt. "Fast Subtree Kernels on Graphs". In: *23rd Annual Conference on Neural Information Processing Systems* (2009), pp. 1660–1668.
- [She+09] Nino Shervashidze et al. "Efficient Graphlet Kernels for Large Graph Comparison". In: *Proceedings of the Twelfth International Conference on Artificial Intelligence and Statistics* 5 (2009), pp. 488–495. ISSN: 15324435. DOI: 10.1.1.165.7842.
- [SSM98] Bernhard Schölkopf, Alexander Smola, and Klaus-Robert Müller. "Nonlinear Component Analysis as a Kernel Eigenvalue Problem". In: *Neural Computation* 10.5 (1998), pp. 1299–1319. ISSN: 0899-7667. DOI: 10.1162/089976698300017467. arXiv: arXiv:1011.1669v3. URL: http://www.mitpressjournals.org/doi/10.1162/089976698300017467.
- [Val+08] Alejandro Valerio et al. "Automatic classification of concept maps based on a topological taxonomy and its application to studying features of human-built maps". In: (2008).
- [Vaz+03] Alexei Vazquez et al. "Global protein function prediction from protein-protein interaction networks". In: *Nature Biotechnology* 21.6 (2003), pp. 697–700. ISSN: 10870156. DOI: 10. 1038/nbt825. arXiv: 0306611 [cond-mat].
- [VFS12a] Daniele Vitale, Paolo Ferragina, and Ugo Scaiella. "Classification of short texts by deploying topical annotations". In: *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics*) 7224 LNCS (2012), pp. 376–387. ISSN: 03029743. DOI: 10.1007/978-3-642-28997-2\_32.

- [VFS12b] Daniele Vitale, Paolo Ferragina, and Ugo Scaiella. "Classification of short texts by deploying topical annotations". In: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 7224 LNCS (2012), pp. 376–387. ISSN: 03029743. DOI: 10.1007/978-3-642-28997-2\_32.
- [Vis+06] S V N Vishwanathan et al. "Fast computation of graph kernels". In: Advances in Neural Information Processing Systems 11 (2006), pp. 1449–1456. ISSN: 1793-5091. URL: http://www.ncbi.nlm.nih.gov/pubmed/17992741%7B%5C%%7D5Cnhttp://eprints.pascal-network.org/archive/00003990/.
- [VS06] Sudhir Varma and Richard Simon. "Bias in error estimation when using cross-validation for model selection". In: *BMC Bioinformatics* 7 (2006), pp. 1–8. ISSN: 14712105. DOI: 10.1186/1471-2105-7-91.
- [Wan+14] Alex Hai Wang et al. "Detecting Spam Bots in Online Social Networking Sites: A Machine Learning Approach". In: (2014), pp. –8. DOI: 10.1007/978-3-642-13739-6.
- [WC] Gang Wu and Edward Y Chang. "Formulating Distance Functions via the Kernel Trick". In: 1 (), pp. 703–709.
- [WCV11] Stéfan van der Walt, S Chris Colbert, and Gaël Varoquaux. "The NumPy Array: A Struture for Efficient Numerical Computation". In: *Computing in Science* {&} *Engeneering* 13 (2011), pp. 22–30. ISSN: 1521-9615. DOI: 10.1109/MCSE.2011.37.
- [Wea55] Warren Weaver. "Translation". In: *Machine translation of languages* 14 (1955), pp. 15–23. URL: papers2://publication/uuid/C80EF4E1-CF0D-4B77-946F-007B2AADDD84.
- [Wei02] Gerhard Weikum. "Foundations of statistical natural language processing". In: *ACM SIG-MOD Record* 31.3 (2002), p. 37. ISSN: 01635808. DOI: 10.1145/601858.601867. arXiv: arXiv:1011.1669v3. URL: http://portal.acm.org/citation.cfm?doid=601858.601867.
- [YV15] Pinar Yanardag and S.V.N. Vishwanathan. "Deep Graph Kernels". In: *Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining KDD '15*. 2015, pp. 1365–1374. ISBN: 9781450336642. DOI: 10.1145/2783258.2783417. URL: http://dl.acm.org/citation.cfm?doid=2783258.2783417.
- [YX08] Bo Yu and Zong-ben Xu. "A comparative study for content-based dynamic spam classification using four machine learning algorithms". In: *Knowledge-Based Systems* 21.4 (2008), pp. 355–362. ISSN: 09507051. DOI: 10.1016/j.knosys.2008.01.001. URL: http://linkinghub.elsevier.com/retrieve/pii/S0950705108000026.