

Publications

Journal articles

Tiago Almeida, Rui Antunes, João F. Silva, João R. Almeida, and Sérgio Matos (July 2022). “Chemical identification and indexing in PubMed full-text articles using deep learning and heuristics”. In: *Database* 2022.baac047. Oxford University Press.

URL: <https://doi.org/10.1093/database/baac047>

Jorge Miguel Silva, Diogo Pratas, Rui Antunes, Sérgio Matos, and Armando J. Pinho (June 2021). “Automatic analysis of artistic paintings using information-based measures”. In: *Pattern Recognition* 114. Elsevier, p. 107864.

URL: <https://doi.org/10.1016/j.patcog.2021.107864>

Rui Antunes and Sérgio Matos (October 2019). “Extraction of chemical–protein interactions from the literature using neural networks and narrow instance representation”. In: *Database* 2019.baz095. Oxford University Press.

URL: <https://doi.org/10.1093/database/baz095>

Rezarta Islamaj Doğan, Sun Kim, Andrew Chatr-aryamontri, Chih-Hsuan Wei, Donald C. Comeau, Rui Antunes, Sérgio Matos, Qingyu Chen, Aparna Elangovan, Nagesh C. Panyam, Karin Verspoor, Hongfang Liu, Yanshan Wang, Zhuang Liu, Berna Altinel, Zehra Melce Hüsünbeyi, Arzucan Özgür, Aris Fergadis, Chen-Kai Wang, Hong-Jie Dai, Tung Tran, Ramakanth Kavuluru, Ling Luo, Albert Steppi, Jinfeng Zhang, Jinchuan Qu, and Zhiyong Lu (January 2019). “Overview of the BioCreative VI Precision Medicine Track: mining protein interactions and mutations for precision medicine”. In: *Database* 2019.bay147. Oxford University Press.

URL: <https://doi.org/10.1093/database/bay147>

Sérgio Matos and Rui Antunes (December 2017). “Protein–protein interaction article classification using a convolutional recurrent neural network with pre-trained word embeddings”. In: *Journal of Integrative Bioinformatics* 14.4. De Gruyter.

URL: <https://doi.org/10.1515/jib-2017-0055>

Rui Antunes and Sérgio Matos (December 2017). “Supervised learning and knowledge-based approaches applied to biomedical word sense disambiguation”. In: *Journal of Integrative Bioinformatics* 14.4. De Gruyter.

URL: <https://doi.org/10.1515/jib-2017-0051>

Conference articles

João Figueira Silva, Tiago Almeida, Rui Antunes, João Rafael Almeida, and Sérgio Matos (November 2021). “Drug mention recognition in Twitter posts using a deep learning approach”. In: *BioCreative VII Challenge Evaluation Workshop* (Online), pp. 210–213.

URL: <https://biocreative.bioinformatics.udel.edu/resources/publications/bc-vii-workshop-proceedings/>

Tiago Almeida, Rui Antunes, João Figueira Silva, João Rafael Almeida, and Sérgio Matos (November 2021). “Chemical detection and indexing in PubMed full text articles using deep learning and rule-based methods”. In: *BioCreative VII Challenge Evaluation Workshop* (Online), pp. 119–123.

URL: <https://biocreative.bioinformatics.udel.edu/resources/publications/bc-vii-workshop-proceedings/>

Rui Antunes, Tiago Almeida, João Figueira Silva, and Sérgio Matos (November 2021). “Chemical–protein relation extraction in PubMed abstracts using BERT and neural networks”. In: *BioCreative VII Challenge Evaluation Workshop* (Online), pp. 76–79.

URL: <https://biocreative.bioinformatics.udel.edu/resources/publications/bc-vii-workshop-proceedings/>

Alina Trifan, Rui Antunes, and José Luís Oliveira (October 2020). “Machine learning for depression screening in online communities”. In: *14th International Conference on Practical Applications of Computational Biology & Bioinformatics* (Online). Springer Nature, pp. 102–111.

URL: https://doi.org/10.1007/978-3-030-54568-0_11

João Figueira Silva, Rui Antunes, João Rafael Almeida, and Sérgio Matos (April 2020). “Clinical concept normalization on medical records using word embeddings and heuristics”. In: *30th Medical Informatics Europe Conference* (Canceled). IOS Press, pp. 93–97.

URL: <http://hdl.handle.net/10773/29190>

Alina Trifan, Rui Antunes, Sérgio Matos, and Jose Luís Oliveira (April 2020). “Understanding depression from psycholinguistic patterns in social media texts”. In: *42nd European Conference on Information Retrieval* (Online). Springer Nature, pp. 402–409.

URL: https://doi.org/10.1007/978-3-030-45442-5_50

Rui Antunes, João Figueira Silva, and Sérgio Matos (March 2020). “Evaluating semantic textual similarity in clinical sentences using deep learning and sentence embeddings”. In: *35th Annual ACM Symposium on Applied Computing* (Online). ACM, pp. 662–669.

URL: <http://hdl.handle.net/10773/31473>

Rui Antunes, João Figueira Silva, Arnaldo Pereira, and Sérgio Matos (February 2019). “Rule-based and machine learning hybrid system for patient cohort selection”. In: *12th International Joint Conference on Biomedical Engineering Systems and Technologies* (Prague, Czech Republic). SciTePress, pp. 59–67.

URL: <https://doi.org/10.5220/0007349300590067>

Sérgio Matos and Rui Antunes (October 2017). “Identifying relevant literature for precision medicine using deep neural networks”. In: *BioCreative VI Workshop* (Bethesda, Maryland, USA), pp. 99–101.

URL: <https://biocreative.bioinformatics.udel.edu/events/biocreative-vi/workshop/>

Rui Antunes and Sérgio Matos (October 2017). “Evaluation of word embedding vector averaging functions for biomedical word sense disambiguation”. In: *9th INForum – Informatics Symposium* (Aveiro, Portugal). University of Aveiro, pp. 25–30.

URL: <http://hdl.handle.net/10773/25119>

Rui Antunes and Sérgio Matos (June 2017). “Biomedical word sense disambiguation with word embeddings”. In: *11th International Conference on Practical Applications of Computational Biology & Bioinformatics* (Porto, Portugal). Springer Nature, pp. 273–279.

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Rui Antunes and Sérgio Matos (October 2016). “Machine learning with word embeddings applied to biomedical concept disambiguation”. In: *22nd Portuguese Conference on Pattern Recognition* (Aveiro, Portugal). University of Aveiro, pp. 77–78.

URL: <http://hdl.handle.net/10773/25118>

Theses

Rui Antunes (July 2015). “Genomics music”. Master’s thesis. University of Aveiro.

URL: <http://hdl.handle.net/10773/18866>