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## DAFTAR PUSTAKA

- [1] C. B. Frey and M. A. Osborne, “The future of employment: How susceptible are jobs to computerisation?,” *Technol. Forecast. Soc. Change*, vol. 114, pp. 254–280, Jan. 2017.
- [2] I. Sutskever, O. Vinyals, and Q. V. Le, “Sequence to Sequence Learning with Neural Networks,” Sep. 2014.
- [3] “Natural Language Understanding: What is it and how is it different from NLP - Expert System.” [Online]. Available: <https://expertsystem.com/natural-language-understanding-different-nlp/>. [Accessed: 25-Mar-2020].
- [4] “Hallo multilingual BERT, cómo funciona? - omni:us - Medium.” [Online]. Available: <https://medium.com/omnius/hallo-multilingual-bert-cómo-funciona-2b3406cc4dc2>. [Accessed: 29-Mar-2020].
- [5] “Google AI Blog: Open Sourcing BERT: State-of-the-Art Pre-training for Natural Language Processing.” [Online]. Available: <https://ai.googleblog.com/2018/11/open-sourcing-bert-state-of-art-pre.html>. [Accessed: 29-Mar-2020].
- [6] A. Vaswani *et al.*, “Attention is all you need,” in *Advances in Neural Information Processing Systems*, 2017, vol. 2017-December, pp. 5999–6009.
- [7] D. Bahdanau, K. H. Cho, and Y. Bengio, “Neural machine translation by jointly learning to align and translate,” in *3rd International Conference on Learning Representations, ICLR 2015 - Conference Track Proceedings*, 2015.
- [8] “The Illustrated Transformer – Jay Alammar – Visualizing machine learning one

- concept at a time.” [Online]. Available: <http://jalammar.github.io/illustrated-transformer/>. [Accessed: 13-Apr-2020].
- [9] “Breaking BERT Down - Towards Data Science.” [Online]. Available: <https://towardsdatascience.com/breaking-bert-down-430461f60efb>. [Accessed: 30-Mar-2020].
- [10] “An Overview of Normalization Methods in Deep Learning | Machine Learning Explained.” [Online]. Available: <https://mlexplained.com/2018/11/30/an-overview-of-normalization-methods-in-deep-learning/>. [Accessed: 29-Mar-2020].
- [11] “BERTasticity — Understanding Transformers, the CORE behind the Mammoth (Bert).” [Online]. Available: <https://medium.com/analytics-vidhya/bertasticity-part-1-639c9101bb9e>. [Accessed: 30-Mar-2020].
- [12] J. Devlin, M.-W. Chang, K. Lee, and K. Toutanova, “BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding,” Oct. 2018.
- [13] “How the Embedding Layers in BERT Were Implemented - \_\_\_\_ - Medium.” [Online]. Available: [https://medium.com/@\\_init\\_/why-bert-has-3-embedding-layers-and-their-implementation-details-9c261108e28a](https://medium.com/@_init_/why-bert-has-3-embedding-layers-and-their-implementation-details-9c261108e28a). [Accessed: 30-Mar-2020].
- [14] E. Liddy, “Natural Language Processing,” *Sch. Inf. Stud. - Fac. Scholarsh.*, Jan. 2001.
- [15] “Google Cloud Platform - Wikipedia.” [Online]. Available: [https://en.wikipedia.org/wiki/Google\\_Cloud\\_Platform](https://en.wikipedia.org/wiki/Google_Cloud_Platform). [Accessed: 23-Mar-2020].

- [16] “Compute Engine: Virtual Machines (VMs) | Google Cloud.” [Online]. Available: <https://cloud.google.com/compute>. [Accessed: 23-Mar-2020].
- [17] “Google Storage - Wikipedia.” [Online]. Available: [https://en.wikipedia.org/wiki/Google\\_Storage](https://en.wikipedia.org/wiki/Google_Storage). [Accessed: 24-Mar-2020].
- [18] “scikit-learn - Wikipedia.” [Online]. Available: <https://en.wikipedia.org/wiki/Scikit-learn>. [Accessed: 25-Mar-2020].
- [19] “A Gentle Introduction to k-fold Cross-Validation.” [Online]. Available: <https://machinelearningmastery.com/k-fold-cross-validation/>. [Accessed: 25-Mar-2020].
- [20] “3.1. Cross-validation: evaluating estimator performance — scikit-learn 0.22.2 documentation.” [Online]. Available: [https://scikit-learn.org/stable/modules/cross\\_validation.html](https://scikit-learn.org/stable/modules/cross_validation.html). [Accessed: 25-Mar-2020].
- [21] “Understanding Confusion Matrix - Towards Data Science.” [Online]. Available: <https://towardsdatascience.com/understanding-confusion-matrix-a9ad42dcfd62>. [Accessed: 25-Mar-2020].
- [22] “Understanding AUC - ROC Curve - Towards Data Science.” [Online]. Available: <https://towardsdatascience.com/understanding-auc-roc-curve-68b2303cc9c5>. [Accessed: 25-Mar-2020].
- [23] “Examples — transformers 2.3.0 documentation.” [Online]. Available: <https://huggingface.co/transformers/examples.html>. [Accessed: 29-Dec-2019].
- [24] “google-research/bert: TensorFlow code and pre-trained models for BERT.” [Online]. Available: <https://github.com/google-research/bert>. [Accessed: 15-Apr-2020].