



DAFTAR PUSTAKA

- Abdurrahman dan Purwarianti, A., 2019, Effective Use of Augmentation Degree and Language Model for Synonym-based Text Augmentation on Indonesian Text Classification, In, *2019 International Conference on Advanced Computer Science and information Systems (ICACSIS)*, IEEE, Bali, halaman 217–222.
- Arsenijevic, U. dan Jovic, M., 2019, Artificial Intelligence Marketing: Chatbots, In, *2019 International Conference on Artificial Intelligence: Applications and Innovations (ICAIAI)*, IEEE, Belgrade, halaman 19–22.
- Bahdanau, D., Cho, K. dan Bengio, Y., 2014, Neural Machine Translation by Jointly Learning to Align and Translate, *3rd International Conference on Learning Representations, ICLR 2015-Conference Track Proceedings*, halaman 1–15, tersedia di <http://arxiv.org/abs/1409.0473>.
- Caldarini, G., Jaf, S. dan McGarry, K., 2022, A Literature Survey of Recent Advances in Chatbots, *Information (Switzerland)*, 13, 1.
- Chandra, Y.W. dan Suyanto, S., 2019, Indonesian Chatbot of University Admission Using a Question Answering System Based on Sequence-to-Sequence Model, *Procedia Computer Science*, Volume 157, Halaman 367–374.
- Chandwani, V., Kumar, S. dan Singh, P.K., 2020, Long Short-Term Memory based Conversation Modelling, In, *2020 3rd International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things (ICETCE)*, IEEE, Halaman 105–109, Tersedia di <https://ieeexplore.ieee.org/document/9091753/>.
- Chawla, A., Mulay, N., Bishnoi, V. dan Dhama, G., 2021, Improving the performance of Transformer Context Encoders for NER, *Proceedings of 2021 IEEE 24th International Conference on Information Fusion, FUSION 2021*.
- Chowanda, A. dan Chowanda, A.D., 2018, Generative Indonesian Conversation Model using Recurrent Neural Network with Attention Mechanism, *Procedia Computer Science*, Volume 135, Halaman 433–440, tersedia di <https://doi.org/10.1016/j.procs.2018.08.194>.
- Chowanda, A. dan Chowanda, A.D., 2017, Recurrent Neural Network to Deep Learn Conversation in Indonesian, *Procedia Computer Science*, Volume 116, Halaman 579–



586, tersedia di <https://doi.org/10.1016/j.procs.2017.10.078>.

- Chung, J., Gulcehre, C., Cho, K. dan Bengio, Y., 2014, Empirical Evaluation of Gated Recurrent Neural Networks on Sequence Modeling, , Halaman 1–9, Tersedia di <http://arxiv.org/abs/1412.3555>.
- Devlin, J., Chang, M.W., Lee, K. dan Toutanova, K., 2018, BERT: Pre-training of deep bidirectional transformers for language understanding, *arXiv*, Halaman 4171–4186.
- Dzakwan, G. dan Purwarianti, A., 2018, Comparative Study of Topology and Feature Variants for Non-Task-Oriented Chatbot using Sequence to Sequence Learning, In, *2018 5th International Conference on Advanced Informatics: Concept Theory and Applications (ICAICTA)*, IEEE, Krabi, halaman 135–140, Tersedia di <https://ieeexplore.ieee.org/document/8541285>.
- Elcholiqi, A. dan Musdholifah, A., 2020, Chatbot in Bahasa Indonesia using NLP to Provide Banking Information, *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, Volume 14, halaman 91. Tersedia di <https://jurnal.ugm.ac.id/ijccs/article/view/41289>.
- Hidayati, T., Irwan, M. dan Nasution, F., 2020, Pengaruh Fitur Chatbot Aisyah (Asisten Interaktif Mandiri Syariah) Terhadap Kualitas Pelayanan Nasabah, *Jurnal BanqueSyar'i*, Volume 6, Halaman 81–88.
- Imamura, K. dan Sumita, E., 2019, Recycling a Pre-trained BERT Encoder for Neural Machine Translation, In, *Proceedings of the 3rd Workshop on Neural Generation and Translation*, Association for Computational Linguistics, Stroudsburg, halaman 23–31, Tersedia di <https://www.aclweb.org/anthology/D19-5603>.
- Jwala, K., Sirisha, G.N.V.G. dan Padma Raju, G. V., 2019, Developing a chatbot using machine learning, *International Journal of Recent Technology and Engineering*, Volume 8, Halaman 89–92.
- Karatas, G., Demir, O. dan Koray Sahingoz, O., 2018, Deep Learning in Intrusion Detection Systems, In, *2018 International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism (IBIGDELFT)*, IEEE, Halaman 113–116, Tersedia di <https://ieeexplore.ieee.org/document/8625278>.
- Kulkarni, C.S., Bhavsar, A.U., Pingale, S.R. dan Kumbhar, S.S., 2017, BANK CHAT BOT – An Intelligent Assistant System Using NLP and Machine Learning, *International Research Journal of Engineering and Technology (IRJET)*, Volumen 04, Halaman 2374–2377.
- Lakshmi V, S., 2020, A Study on Machine Learning based Conversational Agents and



Designing Techniques, In, *2020 Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)*, IEEE, Palladam, Halaman 965–968, Tersedia di <https://ieeexplore.ieee.org/document/9243577/>.

Luong, T., Pham, H. dan Manning, C.D., 2015, Effective Approaches to Attention-based Neural Machine Translation, In, *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing*, Association for Computational Linguistics, Stroudsburg, PA, USA, Halaman 1412–1421, Tersedia di <http://aclweb.org/anthology/D15-1166>.

Maksutov, A.A., Zamyatovskiy, V.I., Morozov, V.O. & Dmitriev, S.O., 2021, The Transformer Neural Network Architecture for Part-of-Speech Tagging, *Proceedings of the 2021 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering, ElConRus 2021*, 536–540.

Manning, C.D., Raghavan, P. dan Schütze, H., 2009, *An Introduction to Information Retrieval*, Cambridge University Press, Cambridge, England.

Mehrjardi, M.S., Trablesi, A. dan Zaïane, O.R., 2019, Self-Attentional Models Application in Task-Oriented Dialogue Generation Systems, In, *Proceedings - Natural Language Processing in a Deep Learning World*, Incoma Ltd., Shoumen, Bulgaria, Halaman 1031–1040, Tersedia di <https://acl-bg.org/proceedings/2019/RANLP2019/pdf/RANLP119.pdf>.

Nair, A.J., Veena, G. dan Vinayak, A., 2021, Comparative study of Twitter Sentiment on COVID - 19 Tweets, *Proceedings - 5th International Conference on Computing Methodologies and Communication, ICCMC 2021*, Iccmc, Halaman 1773–1778.

Nikmatun, A.S., Winatmoko, A.Y., Septiandri, A.A. dan Jamal, A., 2018, Colloquial Indonesian Lexicon, In, *2018 International Conference on Asian Language Processing (IALP)*, IEEE, Bandung, Halaman 226–229, Tersedia di <https://ieeexplore.ieee.org/document/8629151/>.

Papineni, K., Roukos, S., Ward, T. dan Zhu, W., 2002, BLEU: a Method for Automatic Evaluation of Machine Translation, In, *Proceedings of the 40th Annual Meeting on Association for Computational Linguistics - ACL '02*, Association for Computational Linguistics, Morristown, NJ, USA, Halaman 311, Tersedia di <http://doi.wiley.com/10.1002/andp.19223712302>.

Patihullah, J. dan Winarko, E., 2019, Hate Speech Detection for Indonesia Tweets Using Word Embedding And Gated Recurrent Unit, *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, Volume 13, Halaman 43.



Saengthongpattana, K., Kriengket, K., Porkaew, P. dan Supnithi, T., 2017, Thai - English and English - Thai Translation Performance of Transformer Machine Translation, Halaman 1–5.

Shinde, P.P. dan Shah, S., 2018, A Review of Machine Learning and Deep Learning Applications, In, 2018 Fourth International Conference on Computing Communication Control and Automation (ICCUBEA), IEEE, Halaman 1–6, Tersedia di <https://ieeexplore.ieee.org/document/8697857/>.

Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A.N., Kaiser, L. dan Polosukhin, I., 2017, Attention Is All You Need, *Advances in Neural Information Processing Systems*, arXiv:1706. Tersedia di <http://arxiv.org/abs/1706.03762>.

Wang, B., Simonsen, J.G., Lioma, C., Jiang, X., Yang, H., Liu, Q. dan Simonsen, J.G., 2021, On position embeddings in BERT, *Iclr*, Halaman 1–21.

Wilie, B., Vincentio, K., Winata, G.I., Cahyawijaya, S., Li, X., Lim, Z.Y., Soleman, S., Mahendra, R., Fung, P., Bahar, S. dan Purwarianti, A., 2020, IndoNLU: Benchmark and Resources for Evaluating Indonesian Natural Language Understanding, *arXiv*, Halaman 843–857. Tersedia di <http://arxiv.org/abs/2009.05387>.

Yang, S., Yu, X. dan Zhou, Y., 2020, LSTM and GRU Neural Network Performance Comparison Study: Taking Yelp Review Dataset as an Example, *Proceedings - 2020 International Workshop on Electronic Communication and Artificial Intelligence, IWECAI 2020*, Halaman 98–101.

Yulius, D.P., Warnars, H.L.H.S., Budiharto, W., Kistijantoro, A.I., Heryadi, Y. dan Lukas, 2018, Lstm And Simple Rnn Comparison In The Problem Of Sequence To Sequence On Conversation Data Using Bahasa Indonesia, In, 2018 Indonesian Association for Pattern Recognition International Conference (INAPR), IEEE, Halaman 51–56, Tersedia di <https://ieeexplore.ieee.org/document/8627029/>.