

DAFTAR PUSTAKA

- [1] Kustodian Sentral Efek Indonesia, “Didominasi Milenial dan Gen Z, Jumlah Investor Saham Tembus 4 Juta,” *Kustodian Sentral Efek Indonesia*, p. 1, 2022, Accessed: Sep. 09, 2023. [Online]. Available: https://www.ksei.co.id/files/uploads/press_releases/press_file/id-id/208_berita_pers_didominasi_milenial_dan_gen_z_jumlah_investor_saham_tembus_4_juta_20220725182203.pdf
- [2] F. Tumewu, “Minat Investor Muda Untuk Berinvestasi Di Pasar Modal Melalui Teknologi Fintech,” *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi)*, vol. 6, no. 2, pp. 133–145, 2019, doi: 10.35794/jmbi.v6i2.26170.
- [3] A. K. Negara and H. G. Febrianto, “PENGARUH KEMAJUAN TEKNOLOGI INFORMASI DAN PENGETAHUAN INVESTASI TERHADAP MINAT INVESTASI GENERASI MILENIAL DI PASAR MODAL,” *Business Management Journal*, vol. 16, no. 2, pp. 81–95, 2020, doi: 10.30813/bmj.v16i2.2360.
- [4] I. Halimi and W. A. Kusuma, “Prediksi Indeks Harga Saham Gabungan (IHSG) Menggunakan Algoritma Neural Network,” *Jurnal Edukasi dan Penelitian Informatika (JEPIN)*, vol. 4, no. 1, pp. 24–29, 2018, doi: 10.26418/jp.v4i1.25384.

- [5] B. Gülmez, “Stock price prediction with optimized deep LSTM network with artificial rabbits optimization algorithm,” *Expert Syst Appl*, vol. 227, no. 120346, pp. 1–16, 2023, doi: 10.1016/j.eswa.2023.120346.
- [6] D. Apriadi and A. Y. Saputra, “Prediksi Harga Saham Menggunakan BiLSTM dengan Faktor Sentimen Publik,” *RESTI*, vol. 6, no. 1, pp. 41–46, 2022, doi: doi.org/10.29207/resti.v6i1.3676.
- [7] Bursa Efek Indonesia, “IDX Annually Statistic 2022,” *Idx*, 2022, [Online]. Available: <https://www.idx.co.id/id/data-pasar/laporan-statistik/statistik/>
- [8] R. Dyatmiko, “Dampak Fundamental Dan Risiko Sistematis Terhadap Harga Saham Perbankan Indonesia,” *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, vol. 2, no. 4, pp. 441–450, 2019, doi: 10.5281/zenodo.3472258.
- [9] G. Bathla, “Stock price prediction using LSTM and SVR,” in *PDGC 2020 - 2020 6th International Conference on Parallel, Distributed and Grid Computing*, Institute of Electrical and Electronics Engineers Inc., Nov. 2020, pp. 211–214. doi: 10.1109/PDGC50313.2020.9315800.
- [10] A. Arfan and L. ETP, “Perbandingan Algoritma Long Short-Term Memory dengan SVR Pada Prediksi Harga Saham di Indonesia,” *PETIR*, vol. 13, no. 1, pp. 33–43, Mar. 2020, doi: 10.33322/petir.v13i1.858.
- [11] A. S. Saud and S. Shakya, “Analysis of look back period for stock price prediction with RNN variants: A case study on banking sector of NEPSE,”

- in *Procedia Computer Science*, Elsevier B.V., 2020, pp. 788–798. doi: 10.1016/j.procs.2020.03.419.
- [12] X. Yin, X. Zhang, H. Li, Y. Chen, and W. He, “An interpretable model for stock price movement prediction based on the hierarchical belief rule base,” *Heliyon*, vol. 9, no. 6, Jun. 2023, doi: 10.1016/j.heliyon.2023.e16589.
- [13] M. Vijh, D. Chandola, V. A. Tikkiwal, and A. Kumar, “Stock Closing Price Prediction using Machine Learning Techniques,” *Procedia Comput Sci*, vol. 167, no. 2020, pp. 599–606, 2020, doi: 10.1016/j.procs.2020.03.326.
- [14] W. Riyadi and J. Jasmir, “Performance Prediction of Airport Traffic Using LSTM and CNN-LSTM Models,” *MATRIK : Jurnal Manajemen, Teknik Informatika dan Rekayasa Komputer*, vol. 22, no. 3, pp. 627–638, Jul. 2023, doi: 10.30812/matrik.v22i3.3032.
- [15] C. S. Hsu and J. R. Jiang, “Remaining Useful Life Estimation Using Long Short-Term Memory Deep Learning,” in *Proceedings of 4th IEEE International Conference on Applied System Innovation 2018*, 2018, pp. 58–61.
- [16] X. Song *et al.*, “Time-series well performance prediction based on Long Short-Term Memory (LSTM) neural network model,” *J Pet Sci Eng*, vol. 186, no. 106682, pp. 1–11, Mar. 2020, doi: 10.1016/j.petrol.2019.106682.
- [17] W. Li and D. M. Becker, “Day-ahead electricity price prediction applying hybrid models of LSTM-based deep learning methods and feature selection

- algorithms under consideration of market coupling,” *Energy*, vol. 237, no. 121543, pp. 1–18, Dec. 2021, doi: 10.1016/j.energy.2021.121543.
- [18] D. R. Chandranegara, R. A. Afif, C. S. K. Aditya, W. Suharso, and H. Wibowo, “Prediksi Harga Saham Jakarta Islamic Index Menggunakan Metode Long Short-Term Memory,” *Jurnal Edukasi dan Penelitian Informatika (JEPIN)*, vol. 9, no. 1, pp. 129–135, 2023, doi: 10.26418/jp.v9i1.57561.
- [19] L. Wiranda and M. Sadikin, “Penerapan Long Short Term Memory pada Data Time Series untuk Memprediksi Penjualan Produk PT. Metiska Farma,” *Jurnal Nasional Pendidikan Teknik Informatika (JANAPATI)*, vol. 8, no. 3, pp. 184–196, 2019, doi: doi.org/10.23887/janapati.v8i3.19139.
- [20] M. Qureshi, N. Ahmad, S. Ullah, and A. Raza ul Mustafa, “Forecasting real exchange rate (REER) using artificial intelligence and time series models,” *Heliyon*, vol. 9, no. 5, pp. 1–13, 2023, doi: 10.1016/j.heliyon.2023.e16335.
- [21] Jamaludin and T. Haryanto, “Pemanfaatan Model Long Short Term Memory (LSTM) Untuk Prediksi Harga Emas Sebagai Instrumen Investasi Dalam Mempersiapkan Ancaman Resesi Global 2023,” *Indonesian Journal of Computer Science*, vol. 12, no. 2, pp. 614–621, 2023, doi: 10.33022/ijcs.v12i2.3176.
- [22] M. L. Ashari and M. Sadikin, “PREDIKSI DATA TRANSAKSI PENJUALAN TIME SERIES MENGGUNAKAN REGRESI LSTM,”

- Jurnal Nasional Pendidikan Teknik Informatika (JANAPATI)*, vol. 9, no. 1, pp. 1–10, 2020, doi: 10.23887/janapati.v9i1.19140.
- [23] I. N. Muflikha, S. Sya'roni, A. Alqahoom, and S. Pramana, "The Investment of Sharia Shares in Indonesia Stock Exchange Representative in Sharia Law Economic Perspective," *Demak Universal Journal of Islam and Sharia*, vol. 1, no. 1, pp. 32–48, 2023, doi: 10.61455/deujis.v1i01.25.
- [24] E. Patriya, "IMPLEMENTASI SUPPORT VECTOR MACHINE PADA PREDIKSI HARGA SAHAM GABUNGAN (IHSG)," *Jurnal Ilmiah Teknologi dan Rekayasa*, vol. 25, no. 1, pp. 24–38, 2020, doi: 10.35760/tr.2020.v25i1.2571.
- [25] L. G. S. Artini, N. T. Aryati, P. V. Lestari, N. P. A. Darmayanti, and G. M. Sudiarta, "ANALISIS FUNDAMENTAL MAKRO DAN INTEGRASI PASAR SAHAM DUNIA DENGAN BURSA EFEK INDONESIA," *Matrik : Jurnal Manajemen, Strategi Bisnis dan Kewirausahaan*, vol. 11, no. 2, pp. 128–135, 2017, doi: 10.24843/matrik:jmbk.2017.v11.i02.p03.
- [26] C. Chatfield and H. Xing, *The Analysis of Time Series: An Introduction with R, Seventh Edition*. 2019. doi: 10.1201/9781498752916.
- [27] J. S. Ang, K. W. Ng, and F. F. Chua, "Modeling Time Series Data with Deep Learning: A Review, Analysis, Evaluation and Future Trend," in *2020 8th International Conference on Information Technology and Multimedia, ICIMU 2020*, 2020, pp. 32–37. doi: 10.1109/ICIMU49871.2020.9243546.

- [28] T. Lei, C. Gong, G. Chen, M. Ou, K. Yang, and J. Li, "A novel unsupervised framework for time series data anomaly detection via spectrum decomposition," *Knowl Based Syst*, vol. 280, no. 111002, pp. 1–13, 2023, doi: 10.1016/j.knosys.2023.111002.
- [29] Z. Han, J. Zhao, H. Leung, K. F. Ma, and W. Wang, "A Review of Deep Learning Models for Time Series Prediction," *IEEE Sens J*, vol. 21, no. 6, pp. 7833–7848, 2021, doi: 10.1109/JSEN.2019.2923982.
- [30] F. Petropoulos *et al.*, "Forecasting: theory and practice," *Int J Forecast*, vol. 38, no. 3, pp. 705–871, 2022, doi: 10.1016/j.ijforecast.2021.11.001.
- [31] R. J. Hyndman and G. Athanasopoulos, *Forecasting: Principles and Practice (3rd ed)*. 2021.
- [32] S. N. Rahmadhani, L. Logiandani, R. Z. Ramadhan, R. N. Sofia Amriza, and M. Y. Fathoni, "Analisis Forecasting Penjualan Gula Merah di Jatilawang Menggunakan Metode Weighted Moving Average," *Jurnal Sisfokom (Sistem Informasi dan Komputer)*, vol. 11, no. 3, pp. 381–386, 2022, doi: 10.32736/sisfokom.v11i3.1433.
- [33] T. Yunita, "Peramalan Jumlah Penggunaan Kuota Internet Menggunakan Metode Autoregressive Integrated Moving Average (ARIMA)," *Journal of Mathematics: Theory and Applications*, vol. 1, no. 2, pp. 16–22, 2020, doi: 10.31605/jomta.v2i1.777.
- [34] A. Wanto, S. Defit, and A. Perdana Windarto, "Algoritma Fungsi Pelatihan pada Machine Learning berbasis ANN untuk Peramalan Fenomena

- Bencana,” *Jurnal RESTI (Rekayasa Sistem dan Teknologi Informasi)*, vol. 5, no. 2, pp. 254–264, 2021, doi: 10.29207/resti.v5i2.3031.
- [35] G. S. Atsalakis, I. G. Atsalaki, F. Pasiouras, and C. Zopounidis, “Bitcoin price forecasting with neuro-fuzzy techniques,” *Eur J Oper Res*, vol. 276, no. 2, pp. 770–780, 2019, doi: 10.1016/j.ejor.2019.01.040.
- [36] I. H. Sarker, “Deep Learning: A Comprehensive Overview on Techniques, Taxonomy, Applications and Research Directions,” *SN Comput Sci*, vol. 2, no. 6, 2021, doi: 10.1007/s42979-021-00815-1.
- [37] D. Sanjaya and S. Budi, “Prediksi Pencapaian Target Kerja Menggunakan Metode Deep Learning dan Data Envelopment Analysis,” *Jurnal Teknik Informatika dan Sistem Informasi*, vol. 6, no. 2, pp. 288–300, 2020, doi: 10.28932/jutisi.v6i2.2678.
- [38] J. D. Kelleher, *Deep Learning*. 2019. doi: 10.7551/mitpress/11171.001.0001.
- [39] N. P. Y. Yuliana, F. S. D. Arianto, and L. F. M. Horhoruw, “Eksplorasi Deep Learning Menghasilkan Karya Musik Menggunakan Metode Generative Adversarial Networks (GANS) (Kasus Musik Genre Pop),” *J-SAKTI (Jurnal Sains Komputer dan Informatika)*, vol. 7, no. 2, pp. 1025–1039, 2023.
- [40] C. Janiesch, P. Zschech, and K. Heinrich, “Machine learning and deep learning,” *Electronic Markets*, vol. 31, no. 3, pp. 685–695, 2021, doi: 10.1007/s12525-021-00475-2.

- [41] L. Deng and D. Yu, "Deep learning: Methods and applications," *Foundations and Trends in Signal Processing*, vol. 7, no. 3–4, pp. 197–387, 2013. doi: 10.1561/20000000039.
- [42] M. Diqi, A. Sahal, and F. Nur Aini, "Multi-Step Vector Output Prediction of Time Series Using EMA LSTM," *Jurnal Online Informatika*, vol. 8, no. 1, pp. 107–114, Jun. 2023, doi: 10.15575/join.v8i1.1037.
- [43] G. I. Drewil and R. J. Al-Bahadili, "Air pollution prediction using LSTM deep learning and metaheuristics algorithms," *Measurement: Sensors*, vol. 24, Dec. 2022, doi: 10.1016/j.measen.2022.100546.
- [44] P. H. Gunawan, D. Munandar, and A. Z. Farabiba, "Long Short-Term Memory Approach for Predicting Air Temperature In Indonesia," *Jurnal Online Informatika*, vol. 5, no. 2, pp. 161–168, Dec. 2020, doi: 10.15575/join.v5i2.551.
- [45] E. Ismanto, "LSTM Network Hyperparameter Optimization for Stock Price Prediction Using the Optuna Framework," *Jurnal Ilmiah Teknik Elektro Komputer dan Informatika (JITEKI)*, vol. 9, no. 1, pp. 22–35, 2023, doi: 10.26555/jiteki.v9i1.24944.
- [46] N. Rai, D. Kumar, N. Kaushik, C. Raj, and A. Ali, "Fake News Classification using transformer based enhanced LSTM and BERT," *International Journal of Cognitive Computing in Engineering*, vol. 3, pp. 98–105, Jun. 2022, doi: 10.1016/j.ijcce.2022.03.003.

- [47] N. Ma, H. Yin, and K. Wang, "Prediction of the Remaining Useful Life of Supercapacitors at Different Temperatures Based on Improved Long Short-Term Memory," *Energies (Basel)*, vol. 16, no. 14, pp. 1–14, 2023, doi: 10.3390/en16145240.
- [48] K. C. Chiu, "A long short-term memory model for forecasting housing prices in Taiwan in the post-epidemic era through big data analytics," *Asia Pacific Management Review*, 2023, doi: 10.1016/j.apmr.2023.08.002.
- [49] D. Alita, A. D. Putra, and D. Darwis, "Analysis of classic assumption test and multiple linear regression coefficient test for employee structural office recommendation," *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, vol. 15, no. 3, pp. 295–306, 2021, doi: 10.22146/ijccs.65586.
- [50] P. Nop and Z. Qin, "Cambodia Mid-Term Transmission System Load Forecasting with the combination of Seasonal ARIMA and Gaussian Process Regression," in *2021 3rd Asia Energy and Electrical Engineering Symposium, AEEES 2021*, 2021, pp. 700–707. doi: 10.1109/AEEES51875.2021.9403196.
- [51] Imran, S. Ahmad, and D. H. Kim, "Quantum GIS Based Descriptive and Predictive Data Analysis for Effective Planning of Waste Management," *IEEE Access*, vol. 8, pp. 46193–46205, 2020, doi: 10.1109/ACCESS.2020.2979015.

- [52] A. Moniri, D. Terracina, J. Rodriguez-Manzano, P. H. Strutton, and P. Georgiou, “Real-Time Forecasting of sEMG Features for Trunk Muscle Fatigue Using Machine Learning,” *IEEE Trans Biomed Eng*, vol. 68, no. 2, pp. 718–727, 2021, doi: 10.1109/TBME.2020.3012783.
- [53] D. J. Pine, *Introduction to Python for Science and Engineering*. 2019. doi: 10.1201/9780429506413.
- [54] C. D. Lopez, M. Cvetkovic, and P. Palensky, “Enhancing PowerFactory Dynamic Models with Python for Rapid Prototyping,” in *IEEE International Symposium on Industrial Electronics*, 2019, pp. 93–99. doi: 10.1109/ISIE.2019.8781432.
- [55] A. Kumar and S. P. Panda, “A Survey: How Python Pitches in IT-World,” in *Proceedings of the International Conference on Machine Learning, Big Data, Cloud and Parallel Computing: Trends, Perspectives and Prospects, COMITCon 2019*, 2019, pp. 248–251. doi: 10.1109/COMITCon.2019.8862251.
- [56] I. Stancin and A. Jovic, “An overview and comparison of free Python libraries for data mining and big data analysis,” in *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*, 2019, pp. 977–982. doi: 10.23919/MIPRO.2019.8757088.
- [57] W. R. U. Fadilah, D. Agfiannisa, and Y. Azhar, “Analisis Prediksi Harga Saham PT. Telekomunikasi Indonesia Menggunakan Metode Support

- Vector Machine,” *Fountain of Informatics Journal*, vol. 5, no. 2, pp. 45–51, 2020, doi: 10.21111/fij.v5i2.4449.
- [58] A. L. Putra and A. Kurniawati, “Analisis Prediksi Harga Saham PT. Astra International Tbk Menggunakan Metode Autoregressive Integrated Moving Average (ARIMA) dan Support Vector Regression (SVR),” *Jurnal Ilmiah Komputasi*, vol. 20, no. 3, pp. 417–423, 2021, doi: 10.32409/jikstik.20.3.2732.
- [59] E. Fitri and D. Riana, “Analisa Perbandingan Model Prediction Dalam Prediksi Harga Saham Menggunakan Metode Linear Regression, Random Forest Regression Dan Multilayer Perceptron,” *METHOMIKA Jurnal Manajemen Informatika dan Komputerisasi Akuntansi*, vol. 6, no. 1, pp. 69–78, 2022, doi: 10.46880/jmika.vol6no1.pp69-78.
- [60] M. Merfin and R. S. Oetama, “Prediksi Harga Saham Perusahaan Perbankan Menggunakan Regresi Linear Studi Kasus Bank BCA Tahun 2015-2017,” *Ultimatics : Jurnal Teknik Informatika*, vol. 11, no. 1, pp. 11–15, 2019, doi: 10.31937/ti.v11i1.1239.
- [61] A. Thabibi and R. Supriyanto, “Perbandingan Model Multiple Linear Regression Dan Decision Tree Regression (Studi Kasus: Prediksi Harga Saham Telkom, Indosat, Dan Xl),” *Jurnal Ilmiah Teknologi dan Rekayasa*, vol. 28, no. 1, pp. 78–92, 2023, doi: 10.35760/tr.2023.v28i1.6081.