



DAFTAR PUSTAKA

- Abdullah, M. F., Kusrini, K., & Arief, M. R. (2022). Prediksi Nilai Dan Waktu Kelulusan Mahasiswa Menggunakan Metode SVM (Studi Kasus: Universitas KH A Wahab Hasbullah Jombang. *SAINTEKBU*, 14(01), 35-44.
- Anonym, “*General Python FAQ*”. python.org. 2019
- Araka, E., Maina, E., Gitonga, R., & Oboko, R. (2019, May). *A conceptual model for measuring and supporting self-regulated learning using educational data mining on learning management systems*. In 2019 IST-Africa Week Conference (IST-Africa) (pp. 1-11). IEEE.
- Athani, S. S., Kodli, S. A., Banavasi, M. N., & Hiremath, P. S. (2017, May). *Student academic performance and social behavior predictor using data mining techniques*. In 2017 International Conference on Computing, Communication and Automation (ICCCA) (pp. 170-174). IEEE.
- Babić, I. Đ. (2017). *Machine learning methods in predicting the student academic motivation*. *Croatian Operational Research Review*, 443-461.
- Bernacki, M. L., Chavez, M. M., & Uesbeck, P. M. (2020). *Predicting achievement and providing support before STEM majors begin to fail*. *Computers & Education*, 158, 103999.
- Bolon-Canedo, V., Sanchez-Marono, N., Alonso-Betanzos, A., Benitez, J. M., Herrera, F. (2014) *A Review of Microarray Datasets and Applied Feature Selection Methods*. *Information Sciences*. 282: 111–135.
- Cechinel, C., Dos Santos, M. D. F., Barrozo, C., Schardosim, J. E., de Vila, E., Ramos, V., ... & Queiroga, E. M. (2021, October). *A Learning Analytics Dashboard for Moodle: Implementing Machine Learning Techniques to Early Detect Students at Risk of Failure*. In 2021 XVI Latin American Conference on Learning Technologies (LACLO) (pp. 130-136). IEEE.
- Christianini, N., & Shawe-Taylor, J. (2000). *Support vector machines and other kernel-based learning methods*. Cambridge UP.
- Cortes, C., & Vapnik, V. (1995). *Support vector machine*. *Machine learning*, 20(3),



273-297.

- Costa, L., Souza, M., Salvador, L., & Amorim, R. (2019, July). *Monitoring students performance in e-learning based on learning analytics and learning educational objectives*. In 2019 IEEE 19th International Conference on Advanced Learning Technologies (ICALT) (Vol. 2161, pp. 192-193). IEEE.
- Cruz-Jesus, F., Castelli, M., Oliveira, T., Mendes, R., Nunes, C., Sa-Velho, M., & Rosa-Louro, A. (2020). *Using artificial intelligence methods to assess academic achievement in public high schools of a European Union country*. *Heliyon*, 6(6), e04081.
- El-Halees, A. (2009). Mining students data to analyze e-Learning behavior: A Case Study.
- Fernandes, E., Holanda, M., Victorino, M., Borges, V., Carvalho, R., & Van Erven, G. (2019). *Educational data mining: Predictive analysis of academic performance of public school students in the capital of Brazil*. *Journal of Business Research*, 94, 335-343.
- Gunn, S. R. (1998). *Support vector machines for classification and regression*. ISIS technical report, 14(1), 5-16.
- Haryatmi, E., & Hervianti, S. P. (2021). Penerapan Algoritma Support Vector Machine Untuk Model Prediksi Kelulusan Mahasiswa Tepat Waktu. *Jurnal RESTI (Rekayasa Sistem dan Teknologi Informasi)*, 5(2), 386-392.
- Kaelbling, L. P., Littman, M. L., & Moore, A. W. (1996). *Reinforcement learning: A survey*. *Journal of artificial intelligence research*, 4, 237-285.
- Karatzoglou, A., Smola, A., Hornik, K., & Zeileis, A. (2004). kernlab-an S4 package for kernel methods in R. *Journal of statistical software*, 11, 1-20.
- Kashyap, P. (2017). *Machine learning for decision makers: Cognitive computing fundamentals for better decision making* (pp. 227-8). Bangalore: Apress.
- Krishnan, R., Nair, S., Saamuel, B. S., Justin, S., Iwendi, C., Biamba, C., & Ibeke, E. (2022). *Smart Analysis of Learners Performance Using Learning Analytics for Improving Academic Progression: A Case Study Model*. *Sustainability*, 14(6), 3378.
- Lias, T. E., & Elias, T. (2011). *Learning analytics: The definitions, the processes,*



and the potential.

- M. Muhathir, M. H. Santoso, & D. A. Larasati, “Wayang Image Classification Using SVM Method and GLCM Feature Extraction,” *JITE (Journal of Informatics and Telecommunication Engineering)*, vol. 4, no. 2, pp. 373–382, Jan. 2021, doi:10.31289/jite.v4i2.4524.
- Nagy, M., & Molontay, R. (2018, June). *Predicting dropout in higher education based on secondary school performance*. In 2018 IEEE 22nd international conference on intelligent engineering systems (INES) (pp. 000389-000394). IEEE.
- Nouri, J., Saqr, M., & Fors, U. (2019, March). *Predicting performance of students in a flipped classroom using machine learning: towards automated data-driven formative feedback*. In 10th International conference on education, training and informatics (ICETI 2019) (Vol. 17, No. 4, pp. 17-21).
- Nugroho, A. S., Witarto, A. B., & Handoko, D. (2003). *Support Vector Machine Teori dan Aplikasinya dalam Bioinformatika*. IlmuKomputer. Com.
- Parapat, I. M. (2018). Penerapan Metode *Support Vector Machine (SVM)* Pada Klasifikasi Penyimpangan Tumbuh Kembang Anak (*Doctoral dissertation*, Universitas Brawijaya).
- Picciano, A. G. (2012). *The evolution of big data and learning analytics in American higher education*. *Journal of asynchronous learning networks*, 16(3), 9-20.
- Q. Iman & A. W. Wijayanto, “Klasifikasi Rumah Tangga Penerima Beras Miskin (Raskin)/Beras Sejahtera (Rastra) di Provinsi Jawa Barat Tahun 2017 dengan Metode Random Forest dan Support Vector Machine,” *Jurnal Sistem Dan Teknologi Informasi (Justin)*, vol. 9, no. 2, p. 178, Apr. 2021, doi: 10.26418/justin.v9i2.44137.
- Qu, S., Li, K., Zhang, S., & Wang, Y. (2018). *Predicting achievement of students in smart campus*. IEEE Access, 6, 60264-60273.
- S., Jha, M., & O’Brien, L. (2019, December). *Analysing Computer Science Course Using Learning Analytics Techniques*. In 2019 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE) (pp. 1-6). IEEE.



- Santosa, B. (2007). Data mining teknik pemanfaatan data untuk keperluan bisnis. Yogyakarta: Graha Ilmu, 978(979), 756.
- Sekeroglu, B., Dimililer, K., & Tuncal, K. (2019, March). *Student performance prediction and classification using machine learning algorithms*. In *Proceedings of the 2019 8th International Conference on Educational and Information Technology* (pp. 7-11).
- Sharef, N. M., & Akbar, M. D. (2021, October). *Learning Analytics of Online Instructional Design during COVID-19: Experience from Teaching Data Analytics Course*. In *2021 International Conference Advancement in Data Science, E-learning and Information Systems (ICADEIS)* (pp. 1-6). IEEE.
- Siemens, G., & Baker, R. S. D. (2012, April). *Learning analytics and educational data mining: towards communication and collaboration*. In *Proceedings of the 2nd international conference on learning analytics and knowledge* (pp. 252-254).
- Stuart, J. (2010). *Artificial Intelligence A Modern Approach Third Edition*.
- Suhardjono, S., Wijaya, G., & Hamid, A. (2019). prediksi waktu kelulusan mahasiswa menggunakan SVM berbasis PSO. *Bianglala Informatika*, 7(2), 97-101.
- Tarik, A., Aissa, H., & Yousef, F. (2021). *Artificial intelligence and machine learning to predict student performance during the COVID-19*. *Procedia Computer Science*, 184, 835-840.
- V. L. Uskov, J. P. Bakken, A. Byerly and A. Shah, "Machine Learning-based Predictive Analytics of Student Academic Performance in STEM Education," 2019 IEEE Global Engineering Education Conference (EDUCON), 2019, pp. 1370-1376, doi: 10.1109/EDUCON.2019.8725237.
- Xu, X., Wang, J., Peng, H., & Wu, R. (2019). *Prediction of academic performance associated with internet usage behaviors using machine learning algorithms*. *Computers in Human Behavior*, 98, 166-173.
- Yağcı, M. (2022). *Educational data mining: prediction of students' academic performance using machine learning algorithms*. *Smart Learning Environments*, 9(1), 1-19.



- Yanqiu, Z., & Wei, W. (2010, March). Pattern Classification of Electroencephalography from the Typical Specialized Students. In 2010 Second International Workshop on Education Technology and Computer Science (Vol. 1, pp. 836-839). IEEE.
- Zohair, A., & Mahmoud, L. (2019). *Prediction of Student's performance by modelling small dataset size*. *International Journal of Educational Technology in Higher Education*, 16(1), 1-18.