

## DAFTAR PUSTAKA

- Al-Shabandar, R. et al. (2017) 'Machine learning approaches to predict learning outcomes in Massive open online courses', Proceedings of the International Joint Conference on Neural Networks, 2017-May, pp. 713–720. doi: 10.1109/IJCNN.2017.7965922.
- Altujjar, Y. et al. (2016) 'Predicting Critical Courses Affecting Students Performance : A Case Study', Procedia - Procedia Computer Science, 82(March), pp. 65–71. doi: 10.1016/j.procs.2016.04.010.
- American Psychological Association (2017) 'Education and Socioeconomic Status', APA Publishing, p. 2. Available at: <https://www.apa.org/pi/ses/resources/publications/factsheet-education.pdf>.
- Andhika, S., Floristia, S. and Alawiyah, T. (2020) 'Pengaruh Jarak Tempat Tinggal Dengan Kampus Terhadap Kosentrasi Belajar Mahasiswa di Kelas', NATURAL SCIENCE: Jurnal Penelitian Bidang IPA dan Pendidikan IPA, 6(1), pp. 22–28.
- Anggraini, S., Defit, S. and Nurcahyo, G. W. (2018) 'Analisis Data Mining Penjualan Ban Menggunakan Algoritma C4. 5', Jurnal Ilmu Teknik Elektro ..., 5, pp. 0–7.
- Anouze, A. L. M. and Bou-Hamad, I. (2019) 'Data envelopment analysis and data mining to efficiency estimation and evaluation', International Journal of Islamic and Middle Eastern Finance and Management, 12(2), pp. 169–190. doi: 10.1108/IMEFM-11-2017-0302.
- Asif, R. et al. (2017) 'Analyzing undergraduate students' performance using

- educational data mining’, *Computers and Education*, 113, pp. 177–194. doi: 10.1016/j.compedu.2017.05.007.
- Badr, G. et al. (2016) ‘Predicting Students ’ Performance in University Courses : A Case Study and Tool in KSU Mathematics Department’, *Procedia - Procedia Computer Science*, 82(March), pp. 80–89. doi: 10.1016/j.procs.2016.04.012.
- Baliyan, S. P. and Khama, D. (2020) ‘How distance to school and study hours after school influence students’ performance in mathematics and English: A comparative analysis’, *Journal of Education and e-Learning Research*, 7(2), pp. 209–217. doi: 10.20448/JOURNAL.509.2020.72.209.217.
- Bendesa Subawa, I. G. (2019) ‘Prediksi Kelulusan Mahasiswa Menggunakan Teorema Teorema Bayes’, 8(August), pp. 227–236.
- Berrar, D. (2018) ‘Cross-validation’, *Encyclopedia of Bioinformatics and Computational Biology: ABC of Bioinformatics*, 1–3(April), pp. 542–545. doi: 10.1016/B978-0-12-809633-8.20349-X.
- Breiman, L. (2001) ‘Random Forests’, *Statistics Department University of California Berkeley, CA 94720*, p. 33. doi: 10.14569/ijacsa.2016.070603.
- Budiyantara, A. et al. (2020) ‘Komparasi Algoritma Decision Tree, Naive Bayes Dan K-Nearest Neighbor Untuk Memprediksi Mahasiswa Lulus Tepat Waktu’, *JITK (Jurnal Ilmu Pengetahuan dan Teknologi Komputer)*, 5(2), pp. 265–270. doi: 10.33480/jitk.v5i2.1214.
- Cáceres-Delpiano, J. and Giolito, E. P. (2018) ‘The impact of age of entry on academic progression’, *Data-Driven Policy Impact Evaluation: How Access*

- to Microdata is Transforming Policy Design, pp. 249–267. doi: 10.1007/978-3-319-78461-8\_16.
- Chauhan, R. and Kaur, H. (2013) Predictive analytics and data mining: A framework for optimizing decisions with R tool, *Advances in Secure Computing, Internet Services, and Applications*. doi: 10.4018/978-1-4666-4940-8.ch004.
- Cheadle, J. E. (2008) ‘Educational investment, family context, and children’s math and reading growth from kindergarten through the third grade’, *Sociology of Education*, 81(1), pp. 1–31. doi: 10.1177/003804070808100101.
- Crawford, C. (2014) ‘The link between secondary school characteristics and university participation and outcomes’, (June).
- Cutler, A., Cutler, D. R. and Stevens, J. R. (2012) ‘Ensemble Machine Learning’, *Ensemble Machine Learning*, (January). doi: 10.1007/978-1-4419-9326-7.
- Dayioğlu, M. and Türüt-Aşık, S. (2007) ‘Gender differences in academic performance in a large public university in Turkey’, *Higher Education*, 53(2), pp. 255–277. doi: 10.1007/s10734-005-2464-6.
- Delaney, J. and Devereux, P. J. (2021) ‘Gender and Educational Achievement: Stylized Facts and Causal Evidence’, *SSRN Electronic Journal*, (14074). doi: 10.2139/ssrn.3775979.
- Dian Indriana TL, Amerti Irvin Widowati, S. (2017) ‘Faktor-Faktor Yang Mempengaruhi Prestasi Akademik : Studi Kasus Pada Mahasiswa Program Studi Akuntansi Universitas Semarang’, *Jurnal Dinamika Sosial Budaya*,

18(1), p. 39. doi: 10.26623/jdsb.v18i1.557.

Etriyanti, E., Syamsuar, D. and Kunang, N. (2020) 'Telematika Implementasi Data Mining Menggunakan Algoritme Naive Bayes Classifier dan C4 . 5 untuk Memprediksi Kelulusan Mahasiswa', 13(1), pp. 56–67.

Fachruddin, M. I. (2015) 'Perbandingan Metode Random Forest Classification Dan Support Vector Machine Untuk Deteksi Epilepsi Menggunakan Data Rekaman Electroencephalograph (EEG)', Fakultas Matematika dan Ilmu Pengetahuan Alam Institut Teknologi Sepuluh Nopember, pp. 1–83.

Fahri, M. U. (2018) 'Prediksi Tingkat Kelulusan Mahasiswa Menggunakan Metode Data Mining', Sentral Jurnal AMKI.

Faizah, T. and Jananto, A. (2021) 'Perbandingan Algoritma C4.5 Dan Id3 Untuk Prediksi Ketepatan Waktu Lulus Mahasiswa', JATISI (Jurnal Teknik Informatika dan Sistem Informasi), 8(2), pp. 980–990. doi: 10.35957/jatisi.v8i2.593.

García, S., Luengo, J. and Herrera, F. (2015) Data Preprocessing In Data Mining, Intelligent Systems Reference Library. doi: 10.1007/978-3-319-10247-4\_8.

Ghosh, S. K. and Janan, F. (2021) 'Prediction of student's performance using random forest classifier', Proceedings of the International Conference on Industrial Engineering and Operations Management, pp. 7089–7100.

Ginting, S. L. B., Zarman, W. and Hamidah, I. (2014) 'Analisis Dan Penerapan Algoritma C4.5 Dalam Data Mining Untuk Memprediksi Masa Studi Mahasiswa Berdasarkan Data Nilai Akademik', (November).

Hai, M., Zhang, You and Zhang, Yuejin (2017) 'A Performance Evaluation of

- Classification Algorithms for Big Data’, *Procedia Computer Science*, 122, pp. 1100–1107. doi: 10.1016/j.procs.2017.11.479.
- Han, H. L., Ma, H. Y. and Yang, Y. (2018) ‘Study on the Test Data Fault Mining Technology Based on Decision Tree’, *Procedia Computer Science*, 154, pp. 232–237. doi: 10.1016/j.procs.2019.06.035.
- Hana, F. M. (2020) ‘Klasifikasi Penderita Penyakit Diabetes Menggunakan Algoritma Decision Tree C4 . 5’, *Jurnal Sistem Komputer dan Kecerdasan Buatan*, Volume IV.
- Iskandar, S., Refisis, N. R. and Ginting, B. A. (2021) ‘Metode Naive Bayes Classifier Dalam Penentuan Penerima Beasiswa Bidikmisi Di Universitas Negeri Medan’, *Karismatika*, 7(1), pp. 10–23.
- Israel, A. and Salau, O. (2019) ‘The impact of engineering students ’ performance in the fi rst three years on their graduation result using educational data mining’, *Heliyon*, (January), p. e01250. doi: 10.1016/j.heliyon.2019.e01250.
- Jackson Nyamubi, G. (2019) ‘Socio-Economic Status as Determinants of Students’ Performance in English Language in Secondary Schools in Tanzania’, *Education Journal*, 8(3), p. 110. doi: 10.11648/j.edu.20190803.14.
- Jacobs, N. and Harvey, D. (2005) ‘Do parents make a difference to children’s academic achievement? Differences between parents of higher and lower achieving students’, *Educational Studies*, 31(4), pp. 431–448. doi: 10.1080/03055690500415746.
- Jananto, A. (2013) ‘Algoritma Naive Bayes untuk Mencari Perkiraan Waktu Studi

Mahasiswa', 18(1), pp. 9–16.

Kantardics, M. (2020) Data mining: Concept, models, methods, and algorithms.

Kantardzic, M. (2020) Data Mining: Concepts, Models, Methods, and Algorithms: Second Edition, Data Mining: Concepts, Models, Methods, and Algorithms: Second Edition. doi: 10.1002/9781118029145.

Kaur, P., Singh, M. and Singh, G. (2015) 'Classification and prediction based data mining algorithms to predict slow learners in education sector', *Procedia - Procedia Computer Science*, 57, pp. 500–508. doi: 10.1016/j.procs.2015.07.372.

Keith, T. Z. et al. (1998) 'Longitudinal Effects of Parent Involvement on High School Grades: Similarities and Differences Across Gender and Ethnic Groups', *Journal of School Psychology*, 36(3), pp. 335–363. doi: 10.1016/S0022-4405(98)00008-9.

Khairul Amin, R. and Sibaroni, Y. (2015) 'Studi Kasus: Bank Pasar Daerah Istimewa Yogyakarta', Vol.2, No., p. 1768.

Kikas, E. et al. (2009) 'The role of individual and contextual factors in the development of maths skills', *Educational Psychology*, 29(5), pp. 541–560. doi: 10.1080/01443410903118499.

Kormos, J. and Kiddle, T. (2013) 'The role of socio-economic factors in motivation to learn English as a foreign language: The case of Chile', *System*, 41(2), pp. 399–412. doi: 10.1016/j.system.2013.03.006.

Kuncel, N. R., Hezlett, S. A. and Ones, D. S. (2004) 'Academic Performance, Career Potential, Creativity, and Job Performance: Can One Construct

- Predict Them All?', *Journal of Personality and Social Psychology*, 86(1), pp. 148–161. doi: 10.1037/0022-3514.86.1.148.
- Kuncel, N. R., Ones, D. S. and Sackett, P. R. (2010) 'Individual differences as predictors of work, educational, and broad life outcomes', *Personality and Individual Differences*, 49(4), pp. 331–336. doi: 10.1016/j.paid.2010.03.042.
- Larose, D. T. (2005) *Data Mining Methods And Models*, The Annual of the British School at Athens. John Wiley & Sons, Inc., Hoboken, New Jersey. doi: 10.1017/S0068245400011199.
- Larose, D. T. and Larose, C. D. (2015) *Data Mining And Predictive Analytic*. Second Edi, John Wiley & Sons, Inc., Hoboken, New Jersey. Second Edi. Canada: simultaneously in Canada.
- Li, Z. and Qiu, Z. (2018) 'How does family background affect children's educational achievement? Evidence from Contemporary China', *Journal of Chinese Sociology*, 5(1). doi: 10.1186/s40711-018-0083-8.
- Lumbanraja, F. R. et al. (2019) 'Implementasi Metode Random Forest Untuk Prediksi Posisi Metilasi Pada Sekuens Protein', *Seminar Nasional Sains, Matematika, Informatika, dan Aplikasinya*, pp. 105–112.
- Meng, X. et al. (2020) 'Construction of decision tree based on C4.5 algorithm for online voltage stability assessment', *International Journal of Electrical Power and Energy Systems*, 118(December 2019), p. 105793. doi: 10.1016/j.ijepes.2019.105793.
- Mienye, I. D., Sun, Y. and Wang, Z. (2019) 'Prediction performance of improved

- decision tree-based algorithms: A review', *Procedia Manufacturing*, 35, pp. 698–703.  
doi: 10.1016/j.promfg.2019.06.011.
- Mohamed, A., Rizaner, A. and Hakan, A. (2016) 'Using data Mining to Predict Instructor Performance', *Procedia - Procedia Computer Science*, 102(August), pp. 137–142. doi: 10.1016/j.procs.2016.09.380.
- Momanyi, J. M., Too, J. and Simiyu, C. (2015) 'Effect of Students' Age on Academic Motivation and Academic Performance among High School Students in Kenya', *Asian Journal of Education and e-Learning*, 03(05), pp. 2321–2454. Available at: [www.ajouronline.com](http://www.ajouronline.com).
- Nachouki, M. and Naaj, M. A. (2022) 'Predicting Student Performance to Improve Academic Advising Using the Random Forest Algorithm', *International Journal of Distance Education Technologies*, 20(1), pp. 1–17. doi: 10.4018/IJDET.296702.
- Nam, K. (2014) 'Until when does the effect of age on academic achievement persist? Evidence from Korean data', *Economics of Education Review*, 40, pp. 106–122. doi: 10.1016/j.econedurev.2014.02.002.
- Naomi, P. and Nindyati, A. D. (2008) 'Faktor-Faktor Individu Yang Mempengaruhi Kinerja Akademik Mahasiswa (Pada Mahasiswa Universitas Paramadina Angkatan 2008)', *Faktor-Faktor Individu Yang Mempengaruhi Kinerja Akademik Mahasiswa*, (2008), pp. 1–16.
- Nelson, D. et al. (2016) 'An Analysis Of The Relationship Between Distance From Campus And Gpa Of Commuter Students', *Journal of International Education Research (JIER)*, 12(1), pp. 37–46. doi:

10.19030/jier.v12i1.9565.

Nunes, C. et al. (2023) 'Determinants of academic achievement: How parents and teachers influence high school students' performance', *Heliyon*, 9(2), p. e13335. doi: 10.1016/j.heliyon.2023.e13335.

Oluwagbenga Abiodun, O.-D. and Isaiah, F. A. (2015) 'Academic Performance, Relationship with Gender and Mode of Admission', *IOSR Journal of Research & Method in Education Ver. II*, 5(6), pp. 2320–7388. doi: 10.9790/7388-05625966.

Oneya, L. and Onyango, D. (2021) 'Perception of School Stakeholders on the Effect of School- Home Distance on Students' Academic Performance among Community Secondary Schools in Rorya District, Tanzania', *East African Journal of Education and Social Sciences*, 2(Issue 1 (January to March 2021)), pp. 76–81. doi: 10.46606/eajess2021v02i01.0068.

Pallathadka, H. et al. (2021) 'Classification and prediction of student performance data using various machine learning algorithms', *Materials Today: Proceedings*, (xxxx). doi: 10.1016/j.matpr.2021.07.382.

Pangastuti, S. S. (2018) 'Perbandingan Metode Ensemble Random Forest Dengan Smote-Boosting Dan Smote-Bagging Pada Klasifikasi Data Mining Untuk Kelas Imbalance a Comparison of the Ensemble Random Forest Methods With Smote-Boosting and Smote-Bagging on Data Mining Classification Fo'.

Rajendran, S., Chamundeswari, S. and Sinha, A. A. (2022) 'Predicting the academic performance of middle- and high-school students using machine

- learning algorithms’, *Social Sciences & Humanities Open*, 6(1), p. 100357. doi: 10.1016/j.ssaho.2022.100357.
- Ramaswami, G. et al. (2019) ‘Using educational data mining techniques to increase the prediction accuracy of student academic performance’, 120(7), pp. 451–467. doi: 10.1108/ILS-03-2019-0017.
- Robert Nisbet, Gary Miner, K. Y. (2018) *Handbook Of Statistical Analysis And Data Mining Applications*. Second Edi. Edited by G. Nisbet. United Kingdom: Candice Janco.
- Sadiq, M. H. and Ahmed, N. S. (2019) ‘Classifying and predicting students’ performance using improved decision tree C4.5 in higher education institutes’, *Lubricants*, 7(12), pp. 1291–1306. doi: 10.3844/jcssp.2019.1291.1306.
- Salmu, S. and Solichin, A. (2017) ‘Prediksi Tingkat Kelulusan Mahasiswa Tepat Waktu Menggunakan Naïve Bayes : Studi Kasus UIN Syarif Hidayatullah Jakarta Prediction of Timeliness Graduation of Students Using Naïve Bayes : A Case Study at Islamic State University Syarif Hidayatullah Jakarta’, (April), pp. 701–709.
- Saputro, I. W. and Sari, B. W. (2019) ‘Uji Performa Algoritma Naïve Bayes untuk Prediksi Masa Studi Mahasiswa’, *Creative Information Technology Journal*, 6(1), p. 1. doi: 10.24076/citec.2019v6i1.178.
- Sathe, M. T. and Adamuthe, A. C. (2021) ‘Comparative study of supervised algorithms for prediction of students’ performance’, *International Journal of Modern Education and Computer Science*, 13(1), pp. 1–21. doi:

10.5815/ijmeecs.2021.01.01.

Setio, P. B. N., Saputro, D. R. S. and Bowo Winarno (2020) 'Klasifikasi Dengan Pohon Keputusan Berbasis Algoritme C4.5', PRISMA, Prosiding Seminar Nasional Matematika, 3, pp. 64–71.

Shahiri, A. M., Husain, W. and Rashid, Nur'aini Abdul (2015) 'A Review on Predicting Student's Performance using Data Mining Techniques', Procedia - Procedia Computer Science, 72, pp. 414–422. doi: 10.1016/j.procs.2015.12.157.

Shahiri, A. M., Husain, W. and Rashid, Nur'Aini Abdul (2015) 'A Review on Predicting Student's Performance Using Data Mining Techniques', Procedia Computer Science, 72, pp. 414–422. doi: 10.1016/j.procs.2015.12.157.

Sirin, S. R. (2005) 'Socioeconomic status and academic achievement: A meta- analytic review of research', Review of Educational Research, 75(3), pp. 417–453. doi: 10.3102/00346543075003417.

Suci Amaliah, Nusrang, M. and Aswi, A. (2022) 'Penerapan Metode Random Forest Untuk Klasifikasi Varian Minuman Kopi di Kedai Kopi Konijiwa Bantaeng', VARIANSI: Journal of Statistics and Its application on Teaching and Research, 4(3), pp. 121–127. doi: 10.35580/variensium31.

Tan, P.-N., Steinbach, M. and Kumar, V. (2013) Introduction to Data Mining (New International Editon), Inform.

Tan, P. N. et al. (2014) Introduction to Data Mining, First Edition, Pearson New International Edition.

Tomul, E. and Savasci, H. S. (2012) 'Socioeconomic determinants of academic

- achievement', *Educational Assessment, Evaluation and Accountability*, 24(3), pp. 175–187. doi: 10.1007/s11092-012-9149-3.
- Verma, S., Yadav, R. K. and Kholiya, K. (2022) 'Prediction of Academic Performance of Engineering Students by Using Data Mining Techniques', *International Journal of Information and Education Technology*, 12(11), pp. 1164–1171. doi: 10.18178/ijiet.2022.12.11.1734.
- VidyaShreeram, N. and Muthukumaravel, D. A. (2021) 'Student Career Prediction Using Decision Tree and Random Forest Machine Learning Classifiers'. doi: 10.4108/eai.7-6-2021.2308621.
- Waliyi Olayemi, A. and Olayemi, W. (2018) 'Impact of Age and Gender on High School Students' Academic Performance in Economics: a Case Study Analysis International Journal for Innovative Research Impact of Age and Gender on High School Students' Academic Performance in Economics: a Case Study Anal', *International Journal for Innovative Research in Multidisciplinary Field*, 4(1), pp. 8–15. Available at: <https://www.researchgate.net/publication/335310374>.
- Wambugu, L. N. and Emeke, E. A. (2019) 'Age-Related Differences in Academic Performance of Undergraduate Science Courses at the University of Nairobi, Kenya', *International Journal of Innovative Research and Development*, 8(9), pp. 208–213. doi: 10.24940/ijird/2019/v8/i9/147720-362876-1-sm.
- Widaningsih, S. (2019) 'Perbandingan Metode Data Mining Untuk Prediksi Nilai Dan Waktu Kelulusan Mahasiswa Prodi Teknik Informatika Dengan

Algoritma C4.5, NAÏVE BAYES, KNN, DAN SVM', 13(1), pp. 16–25.

Widyahastuti, F. and Tjhin, V. U. (2018) 'Performance Prediction in Online Discussion Forum: state-of-the art and comparative analysis', *Procedia Computer Science*, 135, pp. 302–314. doi: 10.1016/j.procs.2018.08.178.

Widyaningsih, Y., Arum, G. P. and Prawira, K. (2021) 'Aplikasi K-Fold Cross Validation Dalam Penentuan Model Regresi Binomial Negatif Terbaik', *BAREKENG: Jurnal Ilmu Matematika dan Terapan*, 15(2), pp. 315–322. doi: 10.30598/barekengvol15iss2pp315-322.

Witten, I. H., Frank, E. and Hall, M. A. (2017) *Practical Machine Learning Fourth Edition*.

Yazici, H., Seyis, S. and Altun, F. (2011) 'Emotional intelligence and self- efficacy beliefs as predictors of academic achievement among high school students', *Procedia - Social and Behavioral Sciences*, 15(December), pp. 2319–2323. doi: 10.1016/j.sbspro.2011.04.100.