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# Flight Delay Prediction by Machine Learning

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**Abstract:** *Nowadays, the aviation industry plays a crucial role in the world's transportation sector, and a lot of businesses rely on various airlines to connect them with other parts of the world. But, extreme weather conditions may directly affect the airline services by means of flight delays. To solve this issue, accurately predicting these flight delays allows passengers to be well prepared for the deterrent caused to their journey and enables airlines to respond to the potential causes of the flight delays in advance to diminish the negative impact. The purpose of this project is to build a web app powered by Machine Learning Algorithm to predict flight delays. We look upon implementing Random Forest Regression algorithm for the prediction model. Also the main idea behind it being a web app is to enable the public interactions with the platform for retrieving the predicted delays for their flights.*

**Keywords:** Flight delay prediction, machine learning, random forest, web app

## REFERENCES

**[1].** M. Leonardi, “Intrusion Detection with Ads-b Anomaly and Sensor Surveillance Tracking,” IEEE Trans. Aerosp. former. system, in press, doi:10.1109/TAES.2018.2886616.
**[2].** Yu. A. Nijsour, G. Caddum, G. Gagnon, F. Gagnon, K. Yuen and R. Ma hapatra, "Adaptive air-to-ground communication systems based on ads-b and global multilateration", IEEE Trans. Milestone Technologies, Vol.65,5, p. 3150–3165, 2015.
**[3].** J.A. F. Zuluaga, J.F.V. Bonya, J.D. O. Pabon and K. M. S. Rios, "Radar Error Calculation and Correction System Based on ads-b and Smart Business Tools", Proc. International Qanahan Conference. security technology., seconds. 1–5, IEEE, 2018.
**[4].** D.A. Pamplona, L. Weigang, A.G. (1999). Wright, E.H. Shiguemori, и с. J.P. Alves, "Supervised Neural Networks with Multi-Input Layers for Air Traffic Delay Prediction", Proc. International Jt. Meeting Neural Networks , pp. 1–6, IEEE, 2018.
**[5].** S. Manna, S. Biswas, R. Kundu, S. Rakshit, P. Gupta, and S. Barman, "Statistical Approach to Flight Delay Prediction Using the Gradient Boosted Decision Tree", Proc. International Conference Intel Account. data science , str. 101-1 1–5, IEEE, 2017.
**[6].** L. Moreira, C. Dantas, L.D., et al. Oliveira, J. Soares and E. Ogasawara, "A Evaluation of Preprocessing Techniques in Machine Learning Models for Flight Delay", Proc. International Jt. Meeting Neural Networks, pp. 1–8, IEEE, 2018.
**[7].** J. J. Rebollo and H. Balakrishnan, "Characterization and Prediction of Air Traffic Delay", Transp. Resolution Part C Technology, Vol. 44, s. 231–241, 2014.
**[8].** L. Hao, M. Hansen, Y. Zhang and J. Post, "New York, New York: Two Methods to Assess the Impact of New York Airport Delays", Transp. Part of resolution ELogist. Transportation Obr., Vol. 70, p. 245–260, 2014.
**[9].** ANAC, “National Civil Aviation Authority of Brazil”. anac.gov, 2017. [Online] Available at: http://www.anac.gov.br/.
**[10].** S. Zhang, X. Li, M.Zong, X. Zhu and R. Wang, "Efficient knnclassification with different number of nearest neighbors", IEEE Trans.Neural Networks. study.sist., vol. 29, no. 5, p. 1774–1785, 2017.

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