An Ensemble Learning Method to Predict Airline Ticket Price Using Machine Learning

V. Ch. Jwala[1], K. Jahnavi[2], K. Mukthamukhi[3], K. Durga Madhavi[4], K. Jaya Lakshmi[5]

Assistant Professor, Department of Information Technology[1]

Students, Department of Information Technology[2,3,4,]

S.R.K.R. Engineering College, Bhimavaram, Andhra Pradesh, India

jwalavegesna@gmail.com, jahnavikasanneni0209@gmail.com

mukthamukhi23@gmail.com, kondurudurgamadhavi@gmail.com, jayalakshmikolli31@gmail.com

Abstract*: In recent years airline travel has become a common mode of transportation. People often prefer travelling through airlines to reach destination as early as possible. But the ticket booking for airlines is somewhat a hectic process because the price value changes day to day based on the availability of flights. So far so many Machine Learning algorithms were used to improve the prediction of ticket prices. This paper presents a comparison of two ensemble machine learning algorithms namely Random Forest and XGBoost to detect the airplane ticket price. Detecting airline price using XGBoost given more accuracy when compared to existing system.*

Keywords: Machine learning, Airline ticket, Random Forest, XGBoost.

REFERENCES

[1]. Machine Learning. Retrieved from https://en.wikipedia.org/wiki/Machine_learning

[2]. Deep Learning. Retrieved from https://www.ibm.com/topics/deep-learning

[3]. Artificial Intelligence. Retrieved from https://www.britannica.com/technology/artificial-intelligence

[4]. Naresh Alapati et al., "Prediction of Flight-fare using machine learning", Conference paper in Research Gate.

[5]. Ankita Panigrahi et al., "Flight Price Prediction Using Machine Learning", Proceedings of the Workshop on Advances in Computational Intelligence, its Concepts & Applications, Vol. 3283, pp. 172-178, 2022.

[6]. Archana Dirgule et al., "Flight Fare Prediction using Random Forest Algorithm", International Journal of Advanced Research in Science, Communication and Technology, Issue 3, Vol 2, pp 659-662, May 2022.

[7]. Classification. Retrieved from https://www.datacamp.com/blog/classification-machine-learning

[8]. Regression. Retrieved from https://builtin.com/data-science/regression-machine-learning

[9]. Clustering. Retrieved from https://www.javatpoint.com/clustering-in-machine-learning

[10]. Ensemble models. Retrieved from https://www.toptal.com/machine-learning/ensemble-methods-machine-learning

[11]. Stacking. Retrieved from https://www.scaler.com/topics/machine-learning/stacking-in-machine-learning/

[12]. Blending. Retrieved from https://www.scaler.com/topics/machine-learning/blending-in-machine-learning/

[13]. Bootstrapping. Retrieved from https://www.mastersindatascience.org/learning/machine-learning-algorithms/bootstrapping/

[14]. Random Forest. Retrieved from https://www.geeksforgeeks.org/random-forest-algorithm-in-machine-learning/

[15]. Decision trees. Retrieved from https://www.analyticsvidhya.com/blog/2021/08/decision-tree-algorithm/

[16]. Gradient Descent. Retrieved from https://www.javatpoint.com/gradient-descent-in-machine-learning