ABSTRACT

Decision-making plays an essential role in the management and may represent the most important component in the planning process. Employee attrition is considered a well-known problem that needs the right decisions from the administration to preserve high qualified employees. Interestingly, artificial intelligence is utilized extensively as an efficient tool for predicting such a problem. The proposed work utilizes the deep learning technique along with some preprocessing steps to improve the prediction of employee attrition. Several factors lead to employee attrition. Such factors are analysed to reveal their intercorrelation and to demonstrate the dominant ones. Our work was tested using the imbalanced dataset of IBM analytics, which contains 35 features for 1157595 rows. To get realistic results, we derived a balanced version from the original one. Finally, cross-validation is implemented to evaluate our work precisely. Extensive experiments have been conducted to show the practical value of our work. The prediction accuracy using the original dataset is about 91%, whereas it is about 94% using a synthetic dataset