Numerology Prediction Using Lo-Shu Grid in Ensemble Learning

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***Abstract*— Nowadays, Numerology is used for the prediction of future events. It will be helpful for the candidate if he knows about a suitable profession in advance, they can do their best in the future. Our system is based on ensemble learning models. The proposed models signify the job by using the input features related to the Lo-Shu grid. The Lo-Shu grid, known as the Magic Square of Order Three (3x3) is a grid containing the numbers 1 to 9, where the sum of each row, column, and diagonal is equal to the same constant value. It is an ancient mathematical concept used for divination. We prepared the labelled dataset containing instances of two classes: teacher and non-teacher. This paper has 15,000 instances in the dataset, in which 6,500 instances belong to teachers and 8,500 instances belong to non-teaching. The classified dataset has used ensemble learning to improve the accuracy value. Further ensemble learning-based machine learning models—decision tree, random forest, AdaBoost, CatBoost, Gradient Boosting, and extreme gradient Boosting are trained using this dataset to predict the profession. During the performance evaluation, it was found that Random Forest performed well compare to the other algorithms, with 65.8% accuracy.**

Keywords—Lo-Shu Grid, Zodiac Signs, Model Performance, Accuracy Comparison, ROC Curve

I. INTRODUCTION

Numerology is a science like astrology, tarot reading and palmistry. It is a logic-based mathematical science and is defined according to your number. You can get exact information about his personality, career, health and relationship by reading numbers. The life path number represents the path you will take in this life and depicts your life's purpose [1]. Numerology is popular in Greece, Japan, China and India. It provides accurate details of the role of a person's Density Number, Conductor Number, Psycho Number and name number. Indian numerology calculation is based on the date of birth and the name number of that person and it is also related to Vedic calculations. Pythagoras was a Greek philosopher, mathematician and the first numerologist of Western future prediction. It is popular in the ancient world and describes how to live best. Every Pythagorean number has self-properties and every number's properties are different from each other. These mathematical techniques predict good days to do things and also indicate lousy days to do something. These depend on the number system. An ancient mathematical concept associated with divination, it is symbolic of balance and harmony.

The Lo-Shu grid is a 3x3 magic square and a combination of rows and columns that predicts an individual's future and a symmetrical number. It has three rows (R) and three columns (C). The sum of numbers in any direction always finds the same number. The sum of all vertical columns, horizontal rows and diagonal values is fifteen and also called the magic number is 15. The Lo-Shu grid has nine houses and stores values in the houses from 1 to 9. Every Lo-Shu Grid house has different types of digits with fixed numbers. This number represents planets and zodiac signs. Every house has different kinds of strengths and weaknesses. These numbers are described characteristics according to the date and life path number. The first row, R1(4,9,2) indicates the head or mind plans, row R2(3,5,7) the body or soul plan and the final row, R3(8,1,6) the physical or practical plans. Same as the rows, columns also have specific plans, such as column C1(4,3,8) thought plans, column C2(9,5,1) will plans and column C3(2,7,6) indicates the action plans of individuals. The diagonal D1 (4, 5, 6) represents the golden yog and D2 (2, 5, 8) the silver yog. The square matrix has 9 cells, and each cell contains a specific value for the particular plans. Someone's grid number will be blank according to his date of birth. The grid number of the Lo-Shu grid represents the quality and daily routine of life prediction. In this work, we will make predictions according to his birth date. Using the date of birth, we predict the future by taking the past as a base and suggesting better ideas. Shown in Fig. 1. House Number five explanation is (House No.: 5, Position: Center, Planets: Mercury, Elements: Earth, Color: Yellow and strength: Good Communication, stable peoples) various houses in Lo-Shu grid follow the adobe property.

Fig. 1. Planets and characteristic in Lo-Shu Grid

A. Zodiac Sign Planets

Table [1] A planet is a celestial body in orbit around the Sun and is categorized into four elements spirit, mind, practical, and action. Numerology has a fixed number for every planet. They have nine planets and nine numbers assigned, representing every planet with single-digit numbers. All planets have some friends planets denoted to positive quality enemy planets describe negativity, side effects, and also problems created in a person's life, enemy, and friends planets table [1] decide according to user birth date. The zodiac sign is a belt of the Sun, Saturn, Moon, Venus, and other planets, where they move in the sky. Paths of the Sun, Moon, and other

visible planets are called zodiac signs, and all zodiac signs show unique personality traits like a number. It is divided into four elements, i.e., Earth, Air, Fire and Water. Zodiac sign are divide into twelve parts, 30-degree sectors of the ecliptic, and everyone has three groups. Earth Signs (Taurus, Virgo, Capricorn), Air Signs (Gemini, Libra, Aquarius), Fire Signs (Aries, Leo, Sagittarius) and Water Signs (Cancer, Scorpio, Pisces) Table [1] shown the Zodiac Signs, symbols, strength and weakness.

TABLE 1. ZODIAC SIGN STRENGTH & WEAKNESS

Zodiac Signs	Symbol	Duration	Strength	Weakness
Aries	Ram	21 Mar To 19 Apr	Honest, Passionate, Confident	Moody, Impulsive, Aggressive
Taurus	Bull	20 Apr To 20 May	Practical, Responsible, Stable	Stubborn, Selfish, Uncompro-mise
Gemini	Twins	21 May To 20 Jun	Gentle, Adaptable, Communication	Contradictory, Nervous, Aimless
Cancer	Carb	21 Jun To 22 Jul	Emotional, Sympathetic, Persuasive	Moody, Insecure, Manipulative
Leo	Lion	23 Jul To 22 Aug	Creative, Passionate, Leadership	Dramatic, Lazy, Criticism
Virgo	Virgin	23 Aug To 22 Sep	Loyal, Kind, Hard Worker	Worry, Shyness, Rudeness
Libra	Scale	23 Sep To 22 Oct	Cooperative, Diplomatic, mediator	Self-Pity, Avoidance, Confrontations
Scorpio	Scorp-ion	23 Oct To 22 Nov	Resourceful, Courageous, Passionate	Angry, Violent, Aggressive
Sagittar-ius	Archer	23 Nov To 21 Dec	Idealistic, Liberal, Sensitive	Furious, Messy, Careless
Capri-cornus	Goat	22 Dec To 19 Jan	Responsible, Discipline, Self-Control	Greedy, Depression, Pride
Aquarius	Water Bearer	20 Jan To 18 Feb	Creative, Progressive, Independent	Uncompromised, Isolate, Poor Spirited
Pisces	Fishes	19 Feb To 20 Mar	Gentle, Sympathetic, Musical	Fearful, Hesitation, Inability

II. LITERATURE REVIEW

The In [1] authors have used classification techniques for medical astrology related to health to prediction in medical astrology, credibility, and validity of application in medical science. The data here analyzed between the zodiac signs of the subject and correlated astrological significates. The anatomical regions are cross-ponding the natal horoscope to the medical history. There have been two types of paradigms identified in medical health; actual and potential health problems of patients. Orem's self-care theory, Roy's adaptation model, and Roger's science of unitary human beings are expected to continue to predict future value. The birth date has yet to be preserved in the earliest literature in medical astrology. Egyptians applied astronomical and astrology predictions of medicine. Collect the data of nursing college and arts five males and Females, males are valid age 20 to 30 and females 19 to 31, years. The predicted value for males is 24.6=4.0 and females 25.4 = 4.8 years.

In [3] decision support and internet application techniques are related to a conceptual agent-based system to get exact information for future prediction. Generate fortune prediction using methods: astrology Chinese Horoscope Signs, Hindu Zodiac Signs, Numerology by Day of Birth, Numerology by Name, and Numerology Gipsy Method. This paper improves the accuracy of traditional astrology systems. Agents predict the decision according to the ability of the agent environment. Develop a machine related to a fortune prediction system using interactive and collaborative data. Every data is specialized to provide accurate information to the user's desires. The interface date of birth interacts between the user and collective data. The user requests the required information through the interface data and generates the results for fortune prediction after transmitting information to the user. This numerology system provides occupation, health, lucky gems, and health. Generated the results by the system depending on a born day, name, year of birth, and user input.

In [4] predict whether a person will become a doctor based on the Date of birth depending on the positions of stars and planets. Decision tree algorithms were used for attribute selection based on minimal cost complexity. Artificial intelligence prediction uses logistic regression and probabilistic statistical classification model, for one or more class label-based predict variables; these variables are not continued. Used the simple cart algorithms for attribute selection variables based on continuous or categorical. They have also used Naïve Bayes Classification Algorithm, Decision Stump Algorithm, and DTNB Algorithm. This paper used 102 records, where 50% data, or 51 persons are doctors, and other persons are not doctors. We got the record in Classification, and the linear regression technique is used for astrological prediction. [4] The authors also will collect new generation educated persons data, to that increase the doctor accuracy values.

In [7] Artificial Neural Network and Naïve Bays algorithm have been used to discover compatible supported with a particular set of characteristics. Name style characteristics are matched to find similar index values with zodiac signs. Various types of compatibility depend on zodiac signs and names. Data collected from different zodiac signs and numerology sources are available on the web. These machine-learning algorithms are used for pre-processing, data-parsing, stop-word removal, ranking, and stemming. Results taken from N.B. & ANN algorithms provide frequent and concrete results for input parameters. Harmony relations between two peoples, their name description & zodiac sign performing the specific operation related to the moon sign, sun sign, and spell type select the particular word which is training data set and predict detailed data based on training data.

In [8] author has used Pythagorean calculation methods to predict Nobel Prize winners, and the birth number is calculated to modulo the arithmetic function. Where conducting two chi-

square tests is the chance for selection, numerology refers to mystical properties, Calculate the birth number, life path number, and fate number. Ancient numerology depended on Pythagoreans and believed the number possessed gender attributes, even number for females and odd number for males. The birth date is always assumed to be a single-digit integer. The authors have collected the various types of noble prize winner data and predicted characteristics. The birth numbers calculated person winners between the years 1901 and 2010. USA President Obama was a Nobel Prize winner in 2009, birth date August 4, 1961. August is the 8th-month sum of his birth number 4 + 8 + 1961=29; again, add this number 2 + 9=11. This value will be in single digits, so 1 + 1=2. This value is for the Nobel Prize winner.

In [9] artificial intelligence for future predictions using the induction of horoscope charts. Astrology is not only a future prediction but also describes past activities that happened in your life. The Almanac database has various types of machine learning techniques Logistic Regression, Support Vector machines, Linear Regression, Classification techniques, and prediction analysis are used for future prediction. Numerology predicts the person's relation to mother, father, Brother, sister, and enemy and defines strength and weakness. Every horoscope has fixed houses and fixed planets, and astrology has twelve zodiac signs, nine planets, and 27 Nakhatrana. The Date of birth has applied some inference rules based on training and testing data. Find the accuracy of input data; having accurate time, Date, and place is required. Currently, many software's are available for astrology prediction, Astrological prediction is a practical subject based on a logical

In [10] Numerology is a subjective topic, supporting Vedas and Hinduism astrology. Personality tests are the basis of the Date of birth finding an employee that best fits. There are anti-discriminatory rules, the hiring process is based on age, Date of birth, and conceptual model. The personality theory functions are philosophy, art, and science. Personality tests and selection processes are different, including in the selection process, Human resource function staffing, training, performance, appraisal, and compensation benefits. Numerology is a commercial world based on the Date of birth, self-understanding of all aspects, individual understanding and conceptualization of reality. Test and decision predict accurate value according to base on previous data. Type one management behavior is perfectionism, related to managers doing things by focusing on quality, and another behavior is related to having an indirect leadership style. Preferring to be the power behind the throne to lead by enthusiastic encouragement of their natural elements. They would prefer to be leaders than followers and can adapt their leadership style to suit their group.

In [11] deep learning algorithm subset framework to detect palm images automatically. Using image processing to forecast the future predicts their characteristics, Wealth, behavior, and career. Palm readers see and classify on the predefined label. This paper has three phases of deep learning based on automated palm reading. Semantic Segmentation of Palm images needs some palm input images that scale size 1080 pixels 2048 is high-resolution image pixels and trained data set image, Multiple-Grid Approach with Palm regions. The image of the data set is divided into 5 * 5 grids in order from left to right and top to bottom. The region has used a convolutional neural network for lifestyle and personalities for future direction. And last is Multi-Class Classification, which uses a convolutional neural network for training data sets. Image size (512, 512) is very high. Evaluate the values are F1-score, True positive, True negative, false positive, and False Negative.

In [16] predictions of the atomic number occurrence of the element are based on their atomic number, which is work performed with numbers associated with planets. According to chemistry, planets' elements are known based on their atomic number. Ancient numerology systems and atomic numbers of all elements help predict the occurrence of elements in space. Numerology can predict the presence of Lithium and magnesium on Jupiter theoretically, and it also describes structures and bonding compounds. Planets' elements are known based on their atomic number. Moolank of numerology and atomic numbers, all elements are related prediction of various elements. Sun's moolank planets are one (1) and can be seen in the birth dates 1, 10, 19, and 28. Moon's moolank planets are two (2) same as in birth dates 2, 11, 20, and 29.

In [17] Author has used the cluster method for the data measuring, and the Enneagram personality traits T-test for students of the university. They explore the personality of all students. Enneagram personality has nine characters included in numerology prediction depending on the different types of individual's specific personality behavior, emotion, mind, and instinct. These mechanisms determine the Enneagram personality. Enneagram typology represents dynamic structure personality, some case behaviors are different. Investigating the relationship between Date of birth and individual personality traits and astrology is controversially acceptable as a science. The resulting factor is related to the university students' examination of Enneagram personality traits. The purpose of this paper's research is co-related with design. The sample of 202 data, 149 female and 53 male, has 5 different departments. Student in each horoscope is Numerology considered by the horoscope belongs 10 to 24 participants in which age lie between 18 to 32 years the average value 19.

III. METHODOLOGY

The steps of methodology that are used to build future prediction numerology system based on machine learning were as follows:

- Collect the data selected and not selected teaching staff, including all possible digits with integer values.
- Computing the Lo-Shu based on features.
- Evaluate the performance of Machine learning based on digits appreciate and predict about them.

Fig. 2. Flow diagram of proposed methodology

A. Dataset

"Fig. 2" The flowchart illustrates the sequence of methodology steps of the proposed model. The process starts

with data collection to train and test the proposed model. The data is collected from multiple sources, which increases the chances of null values and less uniformity in the dataset. These drawbacks in collected data can affect the performance and outcomes of the proposed model. The second step, pre-processing of the collected data, is mandatory to eliminate these drawbacks. Pre-processing eliminates the null values from the dataset and enhances the uniformity in the dataset as per the model's requirement. The proposed model could provide better results after pre-processing the dataset. Further, some feature extraction is required for the Lo-Shu grid in the proposed model. The next step is feature extraction. These features are utilized for training the model. The dataset must be split into the ratio of training and testing datasets. Training dataset 80% and testing dataset into 20% of overall dataset. The next step is applying the machine learning algorithms to the training dataset and analyzing the model's training results. After successfully training of the model, the next step is testing the model on the testing dataset to evaluate the performance of the proposed model. Features are calculated by performance matrices, and the last outcome to the analysis result.

Fig. 3. Numerology dataset

B. *Features of Lo–Shu Grid*

1) Lucky Number: In [8] Pythagorean calculation, the lucky number explains the life events of any person and the lucky number should be a single-digit number.

Lucky number = Sum of all digits number of person's DOB.

Iterative sum until we get a single-digit number of DOB 24/04/1996.

Lucky number = (2+4) + (0+4) + (1+9+9+6)

= 6+4+25. = 35

We need to sum again to get the single-digit number

Lucky number = (3+5) = 8

2) Driver Number: "Fig. 4" The driver number in numerology, add birth date and reduce in single digits of DOB (24/04/1996)

Driver number = sum of the Month Date Number

Driver number = 2+4 = 6

3) Kua Number: The kua number of any person depends on the person's gender.

The kua number can calculate through the following steps:

Step 1. Find the sum of 'Year digits'.

Step 2. *a)* For males, subtract the sum from 11.

b) For females, Add 4 with sum number

The DOB of the individual is 24/04/1996.

Step 3. Sum of the 'Year digits'

= (1+9+9+6) = 25 (double-digit number)

2 + 5 = 7

Step 4. Male: Kua Number = 11 – 7 = 4

Female: Kua Number = 4 + 7 = 11

Kua Number = 1 + 1 = 2

4) The personal year number: Predicts the fortunate year for any person. Find the sum of birth date digits + Birth month digits + fortunate Year digits

The birth date is 24/04/1996, and we want to prediction about the year 2022.

The personal year number = Birth date digits + Birth month digits + fortunate Year digits.

Personal year number = (2+4) + (0+4) + (2+0+2+2)

= 16 = 1+6 = 7

Hence 7 is the personal year number for 2022.

5) Personal month number: "Fig. 4" Personal month number predicts the fortunate month in the selected year.

Personal month number = Predicted personal year number + current year month march (3)

Personal month number = 7 + 3 = 10

= 1+0 = 1

6) Personal day number: Personal day number predicts the specific date in the predicted personal month.

Personal day number = predicted personal month number + select a specific date in the predicted month

The selected date is 20.

Personal day number = 1 + 2 + 0 = 3

Step 1. Initially, Store all the particular digits of the DOB in the fixed houses in the Lo-Shu grid.

Step 2. Store the calculated lucky number in the fixed house in the Lo-Shu grid.

Step 3. Same as step 2, we will store all the predicted numbers, such as Driver number, Kua Number, Personal Year number, Personal month number, and personal day number in the fixed houses of the Lo-Shu grid.

Fig. 4. Store numbers in houses

Lo- Shu grid "Fig. 4" Contains the predicted values of a person that we have calculated in the above DOB. The respective predicted numerological numbers are store in the numerology, they are assigned to the fixed house in the Lo-Shu grid. Using the help of above numbers we can predict various features of the Lo-Shu grid. Person's first row R1 (444, 99, 22) or (4, 9, 2) represents head and mind plans, 3rd row R3 (8, 11, 66) or (8, 1, 6) represents physical & Practical plans and Columns C3 (22, 7, 66) or (2, 7, 6) is represented to action plans. Some houses have null values that have no effect. The Driver number of the person decides the planet, personality, enemy planet, friend's planet, and characteristics. The driver number also predicts the zodiac sign of the person. The zodiac sign describes the symbols, creativity, strengths, and weaknesses of the person as shown in table [1].

IV. Results and Discussion

This paper has used classification technique, these are two types one is a combination of multiple weak classification models to convert a strong classification model and the second one is the voting technique, have uses a consistency function for integration. Calculate all errors of the machine learning model and reduce step by step until obtain the last steps. The error counted in bias and variance both are opposite to each other. The ensemble learning classification technique has used random forest, gradient boosting, Adaboost, and bagging methods. The bagging method is a sample subset of random sampling from the training dataset. The basic model of training

in bagging is performed in a parallel manner. XGBoost is a model of a decision tree that predicts the accuracy of optimized values. It has various objective functions, Classification models, regression models, and ranking there are several features speed, Customization, Performance, Sparsity and input types of data. XGBoost method has computed the accuracy by activation and sigmoid function. Adaboost is an Adoptive boost classifier that combines similar ones. They have used decision tree and stamp classifiers for improving better results, decision stamp is a weak classifier. It has used loss function views, problems with loss function views, and margin views. Gradient Boosting Machine algorithms apply to huge and complex datasets to predict speed and accuracy values. Boosting error values reduces bias error models, before applying this model collect training data and declare by previous error methods. The goal of the decision tree generate a model that predicts values depending on the target variable. This paper has used decision tree classification there are two inputs X, sparse the shape of (n_feature, n_sample) loading the training sample and the other Y which has only integer values (n_sample) loading the class dataset for sample of training. Collected data have a huge number of decision trees, split the data and predict with class. In the case of bagging randomly selected features are correlated with the forest of a decision tree. Random forest predicts the observation of ladled data set on classification technique.

$$g(x) = \sum_{m=1}^{M} \alpha_m \, f_m(X)$$

Fig. 5. Decision tree in numerology prediction

To evaluate the performance of ensemble learning algorithms we implemented those algorithms using python programming and machine learning. The models are trained using training data containing 80% instances and evaluated with testing data that contains test 20% instances. “Table. 2” the performance is measured in terms of Accuracy, F-1 Score, Confusion Metrics, Precision recall and time consumption values for every classifier by using numerology dataset.

Fig. 6. Confusion Metric

Fig. 7. Model Performance

This research has two types of datasets available for both teaching and non-teaching. We train the classifier model based on training and testing datasets. This research has six models that are trained for different types of job prediction. In Table [2], model has nine features available in which every model has five performance matric values viz., confusion matrix, precision, recall, F1- Score and accuracy value. In every model, we obtain the confusion matrix. The values of the metrics we calculated for all the models are different, as shown in Table [2]. Our first model is bagging, which has precision (0.653), recall (0.653), F1-Score (0.621), and Accuracy value (65.5%). For all the models, the maximum and minimum precision value is light GBM (0.6608) & XGBoost (0.65.1), recall value is Light GBM (0.656), AdaBoost, and Random Forest are the same minimum values (0.648), F1-Score is XGBoost (0.646) & Random Forest (0.6205), and Accuracy is Random Forest (65.8%) and AdaBoost (64.8%), respectively. In the selected ensemble learning models, where the percentage of accuracy value is high is the strong model and where the percentage of accuracy value is minimum that is weak models. The robust model is Random Forest (65.8%).

TABLE 2. COMPARISON OF MODEL ACCURACY

Model	*Confusion Matrix*	*Precision*	*Recall*	*F1-Score*	*Accuracy*
Bagging	$\begin{bmatrix}1489 & 228\\ 826 & 474\end{bmatrix}$	0.650	0.653	0.621	65.5%
Adaboost	$\begin{bmatrix}1461 & 256\\ 805 & 495\end{bmatrix}$	0.659	0.648	0.625	64.8%
XGBoost	$\begin{bmatrix}1383 & 334\\ 709 & 591\end{bmatrix}$	0.651	0.654	0.646	65.4%
Light GBM	$\begin{bmatrix}1170 & 247\\ 789 & 511\end{bmatrix}$	0.660	0.656	0.634	65.7%
CatBoost	$\begin{bmatrix}1393 & 324\\ 722 & 578\end{bmatrix}$	0.650	0.653	0.639	65.3%
Rd. Forest	$\begin{bmatrix}1499 & 218\\ 835 & 465\end{bmatrix}$	0.655	0.648	0.6205	65.8%

A. *Classifier Results*

The features used in the classifier are based on attribute score value. Input variables choose features to measure the parameters for every classifier. Table 4 shows the result for the Bagging classifier, where we have applied the feature selection method to the numerology dataset. The bagging classifier provides an accuracy of 65.5% for future prediction in 0.006 second training time and 0.142 second prediction time. AdaBoost provides an accuracy of 64.8% as compared to the ensemble learning of the bagging classifier. In Table 3, the maximum and minimum time for training is obtained by categorical boosting (20.776 sec) and bagging (0.006 sec) models, respectively. Similarly, the maximum and minimum time for training is obtained by random forest (1.295 sec) and light gradient-boosting (0.017 sec) models, respectively. The other ensemble learning classifier is XGBM, LGBM, CatBoost, Random Forest, and Stacking. We compared all the described classifiers and obtained the maximum accuracy is 65.7 % using light gradient-boosting in 3.167 second training and 0.017 second testing time. In contrast, the minimum accuracy is 64.8 % using the Adaptive Boosting classifier obtained in 3.669 second training and 0.193 second prediction time.

B. *ROC Curve*

Shown in Fig. 9. ROC Curve provides model performance of classifications, and its value depends on two parameters. The x-axis represents the TPR, and the y-axis represents the FPR. Every point of the ROC curve denotes the sensitive pairs to the sensitive decision threshold value. When TPR and FPR cross to each other, then it is called the threshold value. These parameter values analyses job prediction using numerology prediction by true and false positive rates. The numerology prediction is a type of test that predicts characteristics of future prediction. In Fig. 2. the values are evaluated by the ROC curve, where we consider two future prediction values that are

tested on collected data. The first dataset is related to teaching. We plotted the area under the ROC curve for the purpose of ensemble learning models with the selected features in the classifier. According to Table 3, we got the Receiving characteristics operator maximum value (0.6834) using bagging and light gradient boosting, and minimum values (0.6676) using Categorical boost Fig. 9. Shown the ROC curve values that we obtained using these models in our research Adaptive Boosting (0.668), Extreme Gradient Boosting (0.672), random Forest (0.677), and stacking (0.6806). These values are found based on Lo-Shu Grid numerology prediction.

Fig. 8. ROC curve

V. CONCLUSION

The study demonstrated the potential of using ensemble machine learning models and the Lo-Shu grid-related features for predicting a candidate's profession, using an approach based on ensemble machine learning models. The input features utilized in the models were related to the Lo-Shu grid, A labelled dataset comprising 15,000 instances, with 6,500 instances belonging to the teacher class and 8,500 instances belonging to the non-teaching class, was prepared for training the models. Various ensemble learning-based machine learning algorithms, including Decision Tree, Random Forest, AdaBoost, CatBoost, Gradient Boosting, and Extreme Gradient Boosting, were employed in the study. During the performance evaluation, it was observed that Random Forest outperformed the other algorithms, achieving an accuracy of 65.8% in predicting the profession of the candidates. In future works, there are several avenues to explore and enhance the prediction of a candidate's profession using the proposed approach. Firstly, expanding the dataset with a larger number of instances and considering additional features could improve the model's accuracy and generalizability. Furthermore, incorporating other relevant factors such as educational background, skills, and personality traits into the predictive models could provide a more comprehensive analysis. Additionally, conducting longitudinal studies to track the career paths of individuals and comparing the predicted profession with the actual outcome would allow for a thorough.

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