



A Scientific Approach of Astrology Prediction for Profession Professor using Classification

Snehlata Barde^{1*}, Sangeeta Tiwari²,

¹MSIT, MATS University, Raipur, Chhattisgarh, 493441, India,
v.snehabarde@gmail.com

²MSIT, MATS University, Raipur, Chhattisgarh, 493441, India,
sangeetatiwari4321@gmail.com

*Barde, E-Mail address: v.snehabarde@gmail.com

ABSTRACT

Numerous AI categorization algorithms can be used in astrology in exciting ways. Astrology is a branch of astronomy that predicts various facets of human nature and life. founded on the planetary position when the person is born. This research endeavor makes use of the planet and star positions at the moment of a person's birth. Using this information, one can predict their chances of becoming a professor. For the study, a total of 120 records were acquired, of which half were those of individuals who were professors by profession and the other half were not. Then, other supervised classification methods, such as Naive Bayes, Random Forest, J48, and Zero-R algorithm, were used to compare the accuracy of the data.

KEYWORDS : Astrological forecasting, Naive Bayes, Random Forest, J48, and Zero-R.

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1. INTRODUCTION

By observing and deciphering the planets, the Sun, the Moon, and the fixed stars, astrology define a sort of divination that involves the prognostication of earthly and human events. Devotees hold that knowing how the planets and stars affect earthly affairs enables them to predict and influence the fates of people, groups, and nations. Throughout its history, astrology has been frequently regarded as a science, but today, it is widely believed to be in direct opposition to the discoveries and theories of contemporary Western science[1]. Astrology is a topic that piques a lot of interest in people. It is necessary to alter how astrology is perceived in order to identify scientific theories and the ways in which they

relate to astrology. To lay the scientific groundwork for astrology, adjustments must be made to the traditional approaches to astrological analysis. The purpose of this study is to determine the scientific foundation using multiple AI categorization techniques. These techniques are used to automatically classify data. There are parallels between the various classification techniques employed here and astrology.

Using various artificial intelligence classification techniques, which are seen as a black box for established methods that have effectively categorized data in a variety of disciplines, is the initial stage in creating a forecast. The next step is to pinpoint the qualities that astrology uses to improve



dynamic prediction and then update the system's knowledge when new records are added. The results will be produced as rules by the classification procedures. We shall go back in time and compare these classification-based criteria to astrological norms. Similarities between these principles are created by the scientific approach of astrology.

2. LITERATURE REVIEW

Planetary influences can be seen in day and night, the ebb and flow of the seasons, and tidal effects. The impact of the planets and stars on human daily life is beyond doubt. Astrology can predict the life of a person's course based on the planetary placement of the stars at the birth time. If astrology has survived for so long, it must have some basis in reality. There is a tonne of information on astrology, but it has never been proven great be scientifically viable. Although since the 15th century, extensive investigation proves the systematic legitimacy of forecasting.

Few researchers hold the opinion that astrology is not considered a science [2,3], But some other says that additional research is necessary to draw that conclusion[4]. According to some people, astrology is divided into two components—analytical and non-analytical—and analytical astrology is the best way to determine to predictions[5].

Supervised learning classification techniques are a recently created field of artificial intelligence[6] that excel at a variety of classification and prediction problems. It also works effectively with extremely hazy and unsure data. These methods worked in different areas, including machine translation[9], cancer analysis and diagnosis[8], and weather forecasting[7]. There is a paper that provides a brief overview of the main machine learning techniques and their applications[10].

Using artificial intelligence approaches, very little has been done so far to anticipate the occurrences of human life based on planetary placements. There has been some exploratory research using the closest neighbor technique and case-based reasoning in the literature [11,12].

3. METHODOLOGY

Data on 120 individuals were collected, of whom 60 records belonged to professors and 60 records to professionals who were not professors. From reputable regional sources, information was obtained by Astro sage databank, and emails belonging to different parts of India consist the subject's name, age, birthplace, address, occupation, and a brief biography were all gathered[13]. Figure 1 shows the scientific approach to the prediction profession.

Data for the study was developed and gathered by determining the positions of the zodiac and planets based on the particulars of the person's birthplace, birth date, and birth time. These records were then preserved in tabular format for further use. Methods of artificial intelligence categorization make use of the following traits:

Inference Engine

An instrument for drawing logical conclusions regarding knowledge assets is an inference engine. The inference engine is frequently mentioned by experts as a part of a knowledge base. When working with many types of information, such as to improve business intelligence, inference engines are helpful.

Classification Techniques

In order to make future predictions in light of the produced hypotheses, generalized hypotheses can be generated from a set of facts using artificial intelligence categorization algorithms. With these techniques, algorithms are built using historical data and pre-defined class labels. Algorithms are frequently built by using the training and testing datasets that determine their accurateness.

It can be quite hard to categorize the optimum organization techniques for a piece of the dataset for the reason that some techniques are effective with some datasets but not for others. In this work, four categorization techniques are looked at. Simple Naïve Bayes, Random Forest, J48, and Zero R. Based on the various complexity

1760

levels and learning styles, the choice was determined.

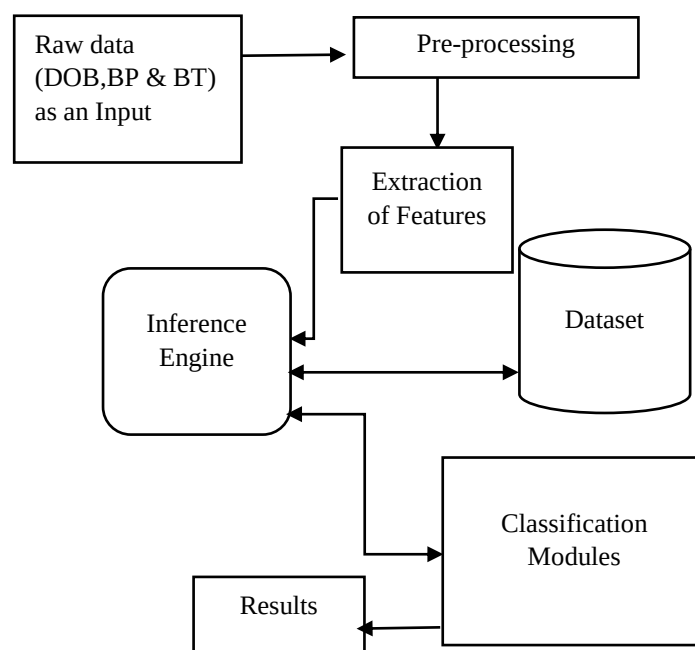


Fig.1. A Scientific Approach toThe Prediction Profession

1761

a) Naïve Bayes classifier

A probabilistic classification method is the Naive Bayes classifier. Its foundation is the notion of the independence of the variable. The incorrect premise of the Naive Bayes classifier is that the occurrence or absenteeism of one feature has no manner on the presence or absence of any other features.

The best way to teach naive Bayes classifiers is in a supervised learning environment. When estimating parameters for Naive Bayes models in real-world applications, the maximum likelihood approach is typically

used. In other words, the Naive Bayes model can be used without any prior knowledge of Bayesian probability or the use of Bayesian methods.

$$P(A|B)=P(B|A)P(A)/P(B).....(1)$$

Where A and B are events and P(B) is not equal to 0.

b) Random Forest classifier

The random forests or random decision forests ensemble learning strategy, which is used for classification, regression, and other

tasks build a lot of decision trees during the training phase. The result of the random forest for classification issues is the class that the majority of the trees choose.

c) J48 classifier

The J48 algorithm is one of the best machine learning Methods for categorical and continuous data processing. For instance, when used for this purpose, it uses more memory and has lower classification accuracy and quick performance for medical data.

d) Zero-R classifier

ZeroR, which is the most basic classification method, disregards all predictors in favor of the target. Only the dominant category is forecasted by the ZeroR classifier (class).

Although ZeroR lacks prediction ability, it can be used to provide baseline performance for other classification methods to compare against.

4. EXPERIMENTS AND EVALUATIONS

Raw Data: We collected the data of those people that have a profession of professor and belong to different technical/science colleges in different cities in terms of Date of Birth, Birthplace, and Birth Time. Similarly, we collected data from non-professor. Horoscope is prepared for all with the help of astrology software. Table 1 gives the sample of the person's details and Figure 2 shows the horoscope.

Table1. Birth Information About The Person

S.No.	Person	DoB	BP	BT
1	P1	15-11-67	Bhopal	7:45 PM
2	P21	07-07-58	Bilaspur	5:10 AM
3	P38	14-07-64	Raipur	6:10 PM
4	P45	28-10-63	Alwar	4:40 AM
5	P54	07.06.73	Dhar	4:25 AM
6	P62	01-12-75	Jabalpur	5:45 PM
7	P79	22-03-60	Bhilwada	8:40 PM
8	P81	04-07-82	Raipur	6:30 AM
9	P90	26-02-79	Allahbad	7:25 AM
10	P110	13-09-65	Banaras	9:48 PM

Pre-process: By creating a CSV-formatted file, the data generated during the aforementioned process was fed into the Weka tool. On the dataset figure 3 shows the result of pre-processing applying the

supervised attribute selection filter that gets two attributes mars = '(3.5 inf)' and class with mean valve = 0.825 and StdDev= 0.382 and total instances are 120 in which 60 weights of professor and other 60 of non-professor.

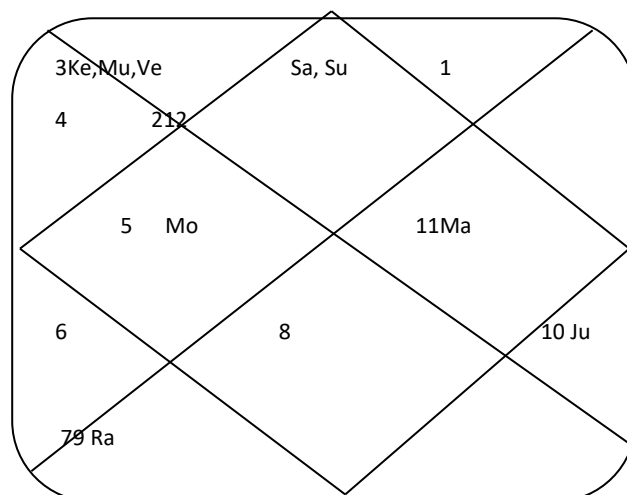


Fig.2. Horoscope of A Person

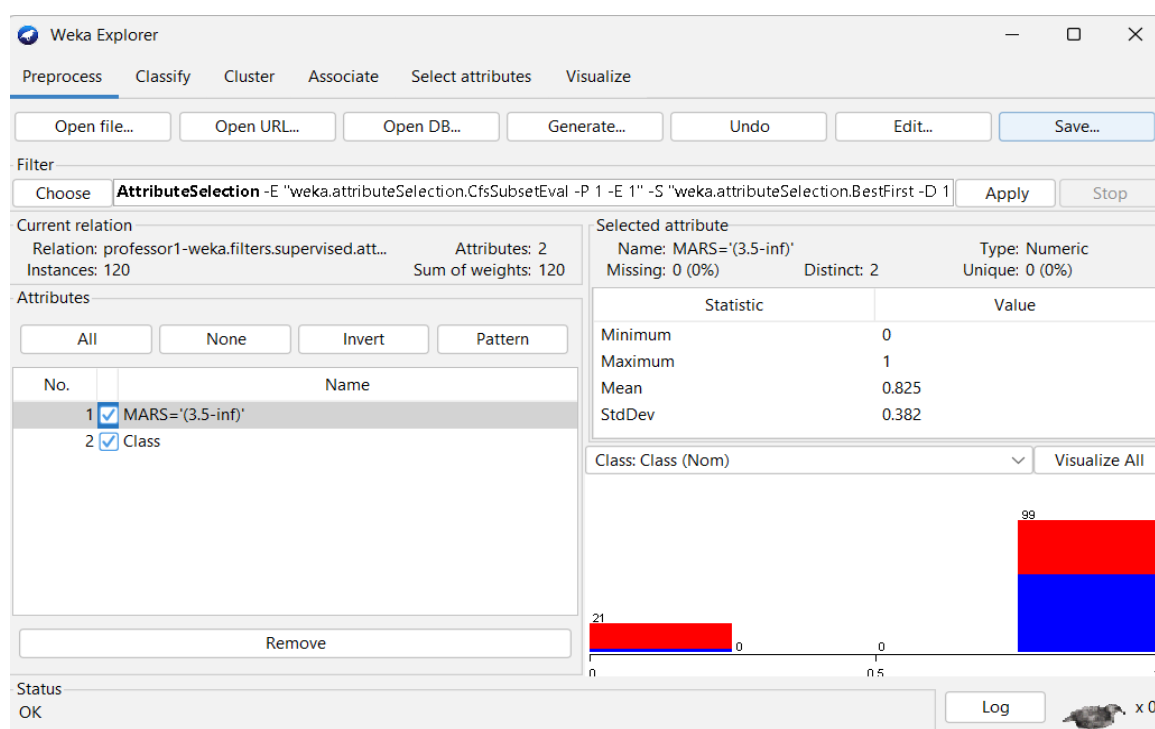


Fig.3.Outcomes of Pre-processing

Classification Modal: A number of classification approaches we have selected Naive Bayes from Bayes, Random Forest, and J48 from the tree, and Zero R chosen from rules were applied using 10,14, and 18-fold cross-validation. Table 2 depicts the outcomes of various strategies for successfully and wrongly classifying data for a person's profession as a professor in terms of CCI, ICI, MAE, RMSE, and RAE in percentage.

Table 3 indicates the True Positive Rate, False Positive Rate, Precision, and F-Measure values for two-class labels professor(P), and Non-Professor (NP), calculation in terms of.

Table 2. Four Classifiers Result Using 10, 14, and 18-Fold

Classifier	Fold	CCI	ICI	MAE	RMSE	RAE%
Naïve Bayes	10	73	47	0.437	0.5191	87.50%
Naïve Bayes	14	82	38	0.399	0.4872	79.93%
Naïve Bayes	18	77	43	0.4233	0.5055	84.59%

Random Forest	10	96	24	0.291	0.373	58.38%
Random Forest	14	96	24	0.277	0.367	55.51%
Random Forest	18	95	25	0.286	0.367	57.31%
J48	10	87	33	0.299	0.509	59.81%
J48	14	98	22	0.211	0.4055	42.27%
J48	18	94	26	0.236	0.448	47.29%
ZeroR	10	60	60	0.5	0.5	100%
ZeroR	14	56	64	0.50	0.50	100%
ZeroR	18	54	66	0.50	0.50	100%

1764

Table 3. TP, FP, Precision, and F-Measure for The Classes

Classification	Class	fold	TP Rate	FP Rate	precision	F-measure
Naïve Bayes	P	10	0.583	0.367	0.614	0.598
	NP		0.633	0.417	0.603	0.618
	P	14	0.700	0.333	0.677	0.689
	NP		0.667	0.300	0.690	0.678
	P	18	0.633	0.350	0.644	0.639
	NP		0.650	0.367	0.639	0.645
Random Forest	P	10	0.867	0.267	0.765	0.813
	NP		0.733	0.133	0.846	0.786
	P	14	0.850	0.250	0.773	0.810
	NP		0.750	0.150	0.833	0.789
	P	18	0.867	0.283	0.754	0.806
	NP		0.717	0.133	0.843	0.775
J48	P	10	0.833	0.383	0.685	0.752
	NP		0.617	0.167	0.787	0.617
	P	14	0.867	0.233	0.788	0.825
	NP		0.767	0.133	0.852	0.807
	P	18	0.833	0.267	0.758	0.794
	NP		0.733	0.167	0.815	0.772
ZeroR	P	10	1.00	1.00	.500	.667
	NP		0.00	0.00	-	-
	P	14	0.667	0.733	0.476	0.556
	NP		0.267	0.33	0.444	0.333
	P	18	0.600	0.70	0.462	0.522
	NP		0.300	0.400	0.429	0.353

Table 4 indicates the MCC, ROC, and PRC area value for the two-class labels professor, and non-professor.

Table 4. MCC, ROC, and PRC Area For The Classes

Classification	Class	fold	MCC	ROC area	PRC area
Naïve Bayes	P	10	0.217	0.621	0.555
	NP		0.217	0.621	0.643



	P	14	0.367	0.694	0.644
	NP		0.367	0.694	0.674
	P	18	0.283	0.648	0.577
	NP		0.283	0.648	0.655
	P	10	0.605	0.896	0.926
	NP		0.605	0.896	0.841
Random Forest	P	14	0.603	0.895	0.923
	NP		0.603	0.895	0.845
	P	18	0.590	0.901	0.925
	NP		0.590	0.901	0.850
	P	10	0.461	0.726	0.680
	NP		0.461	0.726	0.690
J48	P	14	0.637	0.839	0.804
	NP		0.637	0.839	0.824
	P	18	0.570	0.789	0.729
	NP		0.570	0.789	0.770
	P	10	-	0.500	0.500
	NP		-	0.500	0.500
ZeroR	P	14	-0.073	0.453	0.476
	NP		-0.073	0.453	0.476
	P	18	-0.105	0.435	0.467
	NP		-0.105	0.435	0.467

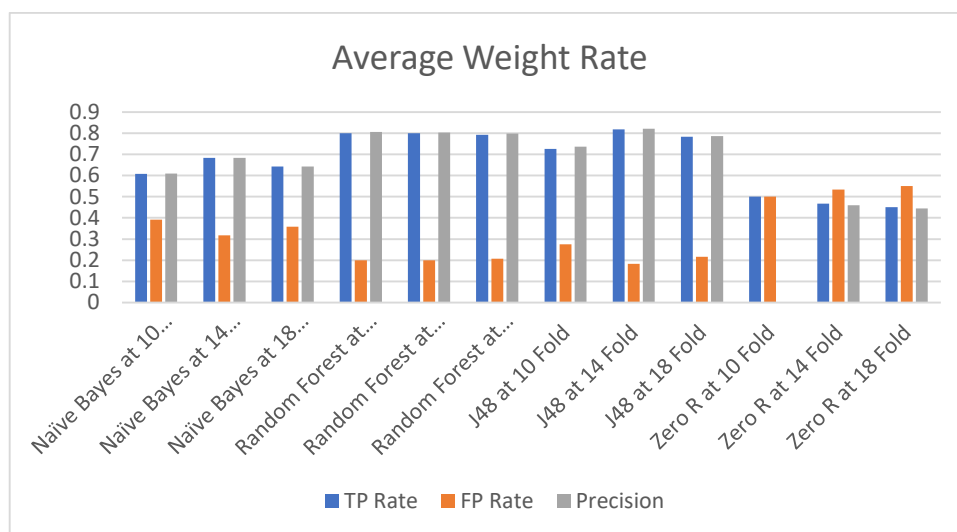
1765

In terms of true positive rate, false-positive rate, precision, and F-measure value, Table 5 shows the average weight of the two-class labels professor and non-professor.

Table 5. Average Weight of The Two-Class

Classification	Cross-validation folds	TP Rate	FP Rate	Precision
Naïve Bayes	10	0.608	0.392	0.609
	14	0.683	0.317	0.683
	18	0.642	0.358	0.642
Random Forest	10	0.800	0.200	0.805
	14	0.800	0.200	0.803
	18	0.792	0.208	0.798
J48	10	0.725	0.275	0.736
	14	0.817	0.183	0.820
	18	0.783	0.217	0.786
Zero R	10	0.500	0.500	-
	14	0.467	0.533	0.460
	18	0.450	0.550	0.445

J48 provides the highest score of TP rate at 14-fold while zero-R gives the minimum TP rate at 18-fold. The graphical representations are shown in Graph1.



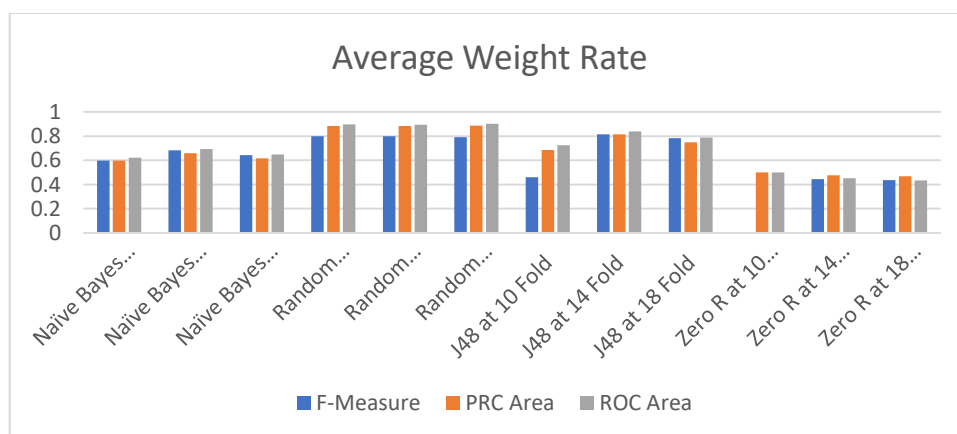
Graph 1. Average weight rate of TP, FP, and Precision of four classifiers

Table 6 indicates the average weight of the two-classes professor, and non-professor in terms of F-measure, PRC, and ROC area. The graphical representation is shown in graph 2.

Table 6. An Average Weight of Two -Classes Professor, and Non-Professor

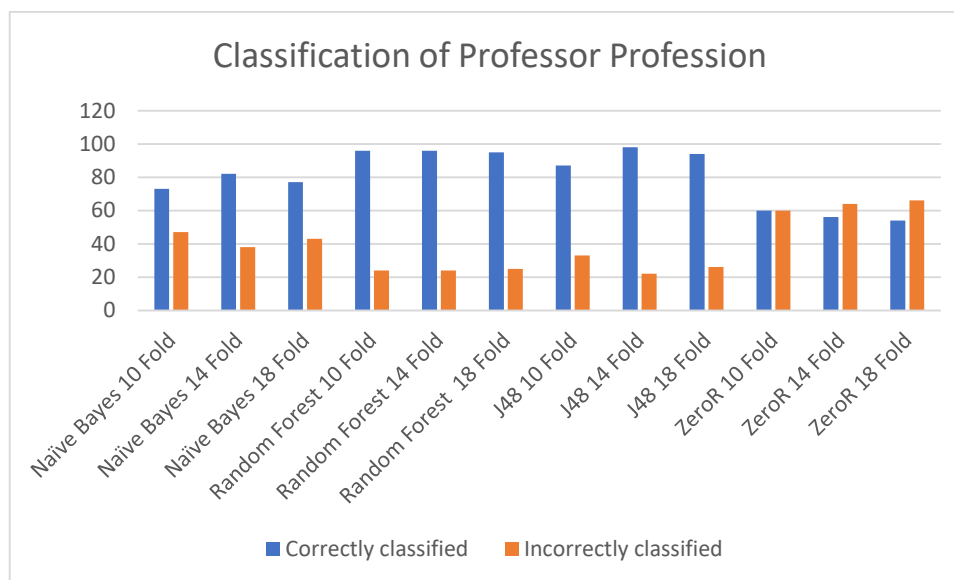
Classification	Cross-validation folds	F-Measure	PRC Area	ROC Area
Naïve Bayes	10	0.598	0.599	0.621
Naïve Bayes	14	0.683	0.659	0.694
Naïve Bayes	18	0.642	0.616	0.6484
Random Forest	10	0.799	0.884	0.896
Random Forest	14	0.799	0.884	0.895
Random Forest	18	0.790	0.887	0.901
J48	10	0.461	0.685	0.726
J48	14	0.816	0.814	0.839
J48	18	0.783	0.749	0.789
ZeroR	10	-	0.500	0.500
ZeroR	14	0.444	0.476	0.453
ZeroR	18	0.437	0.467	0.435

1766



Graph 2. Average weight rate of F-Measure, PRC and ROC Area

J48, which used 14-foldcross-validation and had the highest value of F -measure 81% while Zero-R gives almost the same value in 14 and 18-fold and 10-fold did not show any value. Random Forest gives the highest value 88% at 10,14 and 18-fold of cross-validation and 90% rocare indicate by random forest at 18-fold.



1767

Graph 3. Classification result Graph of Profession professor

Graph 3 shows the result of four supervised classification techniques Naïve Bayes, Random Forest, J48, at 10,14,and 18-fold cross-validation,and found that J48 14 -foldindicates the highest correct classifiedscore of 98% and zero-R 18-fold indicatessa minimum scoreof 54.0% percent, delivered better outcomes.

5. CONCLUSION AND FUTURE WORK

It was expected that the person will become a professor using some figure of example and a variety of training approaches. The best outcomes were obtained using J48 with 14-fold cross-validation, which had an accuracy of98% percent and 54% accuracy rating for the Zero-R algorithm's results using 18-fold categorization.

The results are not dismal, despite the fact that they fell short of expectations. Few strategies outperform others, thus if the remaining strategies are strained or hybrid approaches are invented, means the accuracy of the classificationis enhanced. Additionally,

since there were only 102 records in the data set, it is assumed that as the number of instances rises, so would the results' accuracy.

Results from many classifiers are used to investigate and pinpoint the advantages and disadvantages of various techniques, allowing for the development of new classifiers that build on the strengths of existing classifiers and hence increase prediction accuracy. For the goal of accuracy, extra pieces of a person's information, such as Education and financial position of family, etc., has to be checked when the horoscope is prepared. Several additional variables, such as the planets' strengths, aspect ratios, and interactions with one another, might be included to increase the precision of the results.

If someone will become a professor or not, predictions are made. A person's fundamental character, attitude, financial condition, and other aspects of their life can also be inferred from them.

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Sangeeta Tiwari is a research scholar of MSIT, MATS University Raipur and working as an Assistant professor (Guest Faculty) in the computer science department at GOVT.N.P.G. College of Science Raipur. She has completed

Master of Computer Application from MATS University Raipur, Her research interests include Software Engineering, Machine Learning, and Data Mining. Currently, she is doing research in her desired fields by combining her work experiences and research interests.

Dr. Snehlata Barde is working as a Professor in the MATS school of Information technology at MAT'S University, Raipur, (C.G.). she holds a Ph.D. in IT & CA, from C.V.R. University, Bilaspur. MCA from Pt.Ravi Shankar Shukla University, Raipur, and MSc. (Maths) from Devi Ahilya University Indore. Her research interest includes Digital Image Processing and its Applications in Biometric Security, Forensic Science, Pattern Recognition, Segmentation, Simulation and Modulation, Fuzzy logic, Soft Computing Techniques, Cyber Crime, and IoT. She has published 75 research papers in various International and National Journals and Conferences. She has attained 36 seminars, workshops, and training programs, and she has published 6 Book Chapters and 1 Book in Springer and Elsevier. She got a certificate from CMI (Chartered Management Institute) Level 5 in "Management and Leadership", UKIERI AICTE TECHNICAL LEADERSHIP PROGRAMME UK-India Education and Research Initiatives, from the British Council, and an NPTEL Certificate for reviewing the translated files of the course CLOUD COMPUTING offered by IIT Kharagpur. She got the "Manav Gaurav" award by the Human wellness & Social Development Organization Chhattisgarh and Best Paper Award from AMET Deemed University Chennai. She is a member of IAENG (International Association of Engineers), Hong Kong, Universal Association of Computer and Electronics Engineers(UACEE), International Computer Science and Engineering Society (ICSSES), and International Economics Development and Research Center (IEDRC). Indian Academicians and Researchers Association(IARA), Chartered Management Institute (CMI) in Management and Leadership with Dudley College of Technology UK. She has around 23 years of experience in

teaching at technical institutes and
universities.

1770

