Course Code: SPIC 4AO7 Name: K-L-V Jayaram Guide: Dr. A. Moorthy Reg. Not 1922/03/14 Dept: CSE Project No: SSE/26/10/314-1 Title-1:-Evaluating the Precision of Random forest us Support Vector machines for Forecasting Job Rescission in the Industry. Introduction. Haragraph 12 1) Definition: * this study compares Random towest and support Vector Machine algorithms to determine the most efficive approch for predicting the Job Rescission in the Industry. 2) Importance in Today's World: In the current dynamic economic environment; industries tace uncertainties that can lead to the rescrission of job offers. Accurately forecasting such events is vital for organizations to maintain their reputation and for yob andidates to manage their areer

expectations effectively.

Applications of Reasonch:

* Haman Resource Managent:

Entancing the reliability of Living processes by anticipating potential rescissions.

* Risk Management:

Wentifying economic or organizational indicators.

Hat may lead to offer withdrawals.

* Blicy Development:

Assisting in the creation of guidelines to minimize the impact of rescissions on both companies and prospective employees.

Para graph ?!-

- 1) Total Number of arcticles Published in the Past Syears.
 - > Specific data on the humber of articles focused solely on forecasting job rescission using Random Forest (RF) and Support Vactor Markines (SVM) is limited. However, humerous studies have applied these machine learning techniques to related fields, such as predicting employee turrover and job market frends.

Paragraph -3:-

1) Existing Experience in Research?

> Studied so many articles regarding on this topic and visited so many websities on the issue & discussed with teachers on this topic issue & discussed with teachers on this topic.

Processing such as data augmentation & hormalization are crucial to Ensure that made can learned rebust features.

2) Aim of Study:

to improve the accuracy of predicting the

to improve the accuracy of predicting the

Tob recicission in the industry by analytically Evaluating

the performance of Random Forest and SUM.

Materials and Meflods:

Study setting - SIMATS [SIMATS Engineering] "
16.01. Groups: 2

Group 1: RF

Group 2: SUM

* this step took advantage of the data exploration and

Quality Verification made carrier to create the

Ainal data.

2. Most Cited Articles and Findings!

- * HUAC Foult Detection: A study introduced a hybrid approach combining RF and sum for fault detection in HVAC Systems, achieving a prediction occuracy high.
- * Sentiment text Analysis: Research comparing svm, xGBcoot and RF for sentiment analysis bound that RF cutperformed the other models, suggesting its lobustness in bandling complex datasets.
- 3) Best Study in Our opinion?
- ** Recession Prediction Using Multiple Machine Learning Methods and Historical Economic Data Philip Mackay.

 -University of Lincoln Mubeen Ghatoor University of Lincoln November (oth 2023.

Sample size: 20

Total size: 40

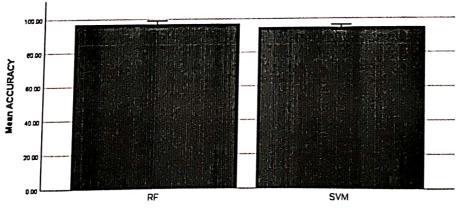
1	Paragraph -2:	
	Same Grouph!	
	Pseudo Code:	Constraint of the contract of
	Random Forest Algorithm!	with the state
	-> Import Libraries	- representation
	-> Load data	¥•
	-> Preprocess data	
	-> Split data:	Sport was I will be
	-> Train Model	and all the second
	-> Compare Model	mairi Am All F.
	-> Result - in a series of	
	Pseudo Code for Support Vector Mac	Line (svm)!
	Pseudo Code for Support Lector	The inter-
	- Import Li Drane	
	-> Process the data	and and the second
	-> Split the Jotaset into teatures	Frank Bright Co
	-> Compute 1	enisa in it in it is
	-> update Weights	national decomposition
	-> Compare Nodes	in the Capturette.
	-> Result	had unbarbar
	The state of the s	= igns in lateria

Paragraph-4?	
Testing Setup!	
→ Data preparation	
Teature Engliseering	
-) Data Splitting -) Model Training	
-> Class Validation	1 The state of
-> Comparision.	in militagenica
	Explorer
Results & Discussion L	top war of
* In related studies, both RF and sv	m have demonstrated
high predictive appabilities.	tains done
* the choice between them often	depends on the specific
* The choice between them often characteristics of the dataset and prediction task.	the rature of the
[imitations]	
-> Data Availability	
-> Data Availability -> Feature Selection	2 F. M. Frm. 1
-) model Interpretability	about of the state
Future Scope;	An toll more than the
-) Hybrid Modeling	Target in
-) Feature Engineering	· him show it
-> (ross-Industry Analysis	Contractor of
	- Random Fund
Come & Ibefor Machines up fixe	etha jah recición in
Conclusion: Evaluating the precision of support vector Machines in fore a essential for improving workforce s	tability and Dhush
estarial in this	Lunning.

Group Statistics							
	GROUP	N	Mean	Std. Deviation	Std. Error Mean		
ACCURACY	RF	10	97.0790	.94658	.29933		
_	SVM	10	94.7200	.76056	.24051		

Indepe	ndent Samples	Test Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differe nce	Std. Error Differe nce	95% Con Interval Different Lower	
ACCU RACY	Equal variances assumed	.445	.513	6.1	18	.000	2.3590	.38399	1.5522 7	3.1657 3
	Equal variances not assumed			6.1 43	17. 202	.000	2.3590 0	.38399	1.5495 8	3.1684 2

Simple Bar Mean of ACCURACY by GROUP



GROUP Error Bars: 95% CI Error Bars: +/- 2 SD