In [2]: In [3]:		rt pandas			dilee/Desk	top/SSV/Vijay/	career_succe	ess.csv")		
In [4]: Out[4]:	df 0	20	ent_job 4	2	5	sponsibilities qua	5	6.6	1	
	2	20 22 25 20	1 2 3 2	2 2 1 1	7	2 1 2 2	3 4 3 1	6.5 7.1 :	0 1 1 0	
	 9995 9996 9997	 20 21 20	 2 5	 2 5	4	 1 3 3	 1 2 5	6.0 (7.4	 0 1	
	9998 9999	24 23 rows × 8 c	5 1	5 2	3	3	5 1	8.2	1	
In [5]: In [21]:	from	sklearn.	.model_	select	•	t train_test_sp et','interests		oilities'll		
In [48]:	Y = Y_=d	df['caree f['class' sklearn.	er_succ '] .linear	ess']	. import Li	nearRegression solute_error,m	1		re	
	mdl x_tr mdl.	EAR REGRE LinearF ain,x_tes fit(x_tra = mdl.pr	Regress st,y_tr ain, y_	ain,y_ train)		_test_split(X,	Y,test_size=	0.2,random_st	tate=1)	
In [23]: Out[23]:		age curre	ent_job	skillset	interests re	sponsibilities				
	1 2 3	20 22 25	1 2 3	2 2 1	5 7 8	2 1 2				
	9995 9996	20 20 21	2 2 5	1 2 5		2 1 3				
	9997 9998 9999	23	4 5 1	2 5 2	3	3 3				
In [54]:	mdl mdl. pred		Regress ain, y_ redict(ion() train) [[21,3	8,3,7,3]]) R): ",pred	[0])				
	prin plt. plt. plt.	t("Accura scatter() plot(X['r klabel('r	acy (LR X['resp respons respons	e): ",m oonsibi sibilit sibilit	<pre>dl.score(X lities'], ' ies'], mdl ies')</pre>	[:100], Y[:100 Y, color='b') .predict(X),co		linewidth=3)		
	plt. C:\U ed w wa	ith featu nings.wa	ee\anac ure nam arn(onda3\ es	lib\site-pa	-	n\base.py:45	0: UserWarnin	ng: X does not have valid fea	ature names, but LinearRegression was fi
		acy (LR)			99890072312 10456628	23548				
	ess	-								
	career_success									
	5									
To [20].	from	1.00	1.25	1.50	respo	2.00 2.25 nsibilities	2.50 2.75	3.00		
In [29]:	mdl. pred prin	<pre>Decisi fit(x_tra</pre>	ionTree ain, y_ redict(cted va	Regres train) [[21,3 lue (L	sor(max_de 3,3,7,3]]) .R): ",pred	oth=3))])*100)			
	plt. plt. plt.		respons respons	ibilit ibilit	ies'], mdl ies')	Y, color='b') .predict(X),co	plor='black',	linewidth=3)		
	fitte wa Pred	ed with f nings.wa icted val	feature arn(Lue (LR	names): 6.			n\base.py:45	0: UserWarnin	ng: X does not have valid fea	ature names, but DecisionTreeRegressor wa
	9									
	ssess 7									
	career_su	AA					<u></u>			
	5	1.00	1.25	1.50	1.75	2.00 2.25	2.50 2.75	3.00		
In [31]:	mdl mdl.	sklearn. = RandomF fit(x_tra	.ensemb ForestF ain, y_	ole imp Regress train)	respo ort Randomi or(n_estima	2.00 2.25 nsibilities orestRegressortors=100, max_	or	2.00		
	pred prin prin plt. plt.	= mdl.pr t("Predict("Accurates scatter() plot(X['r	redict(cted va acy (LR X['resp respons	[[21,3 lue (L !): ",m ponsibi	<pre>8,3,7,3]]) R): ",pred idl.score(X lities'], ies'], mdl</pre>	[0]) [:100], Y[:100 Y, color='b') .predict(X),co		linewid+h-c\		
	plt. plt. plt.	<pre>clabel('r ylabel('c show() sers\dile</pre>	respons career_ ee\anac	sibilit succes	<pre>ies') s') lib\site-pa</pre>				ng: X does not have valid fea	ature names, but RandomForestRegressor w
	wa Pred	acy (LR)	arn(Lue (LR): 6.	92940461362 96177284	29257		•		
	8									
	career_success	-								
	წ 6 5									
	,	1.00	1.25	1.50		2.00 2.25 nsibilities	2.50 2.75	3.00		
In [39]:	mdl. pred prin	t("Predic	rnel = ain, y_ redict(cted va	rbf') train) [[21,3 lue (L	3,3,7,3]]) R): ",pred					
	plt. plt. plt.	scatter(>	X['resp respons respons	onsibi ibilit ibilit	lities'], 'ies'], mdl'ies')	[:100], Y[:100 Y, color='b') .predict(X),co		linewidth=3)		
	c:\Ure no wa	show() sers\dile ames rnings.wa	ee\anac arn(onda3\			n\base.py:45	0: UserWarnin	ng: X does not have valid fea	ature names, but SVR was fitted with fea
		acy (LR)			02247628					
	8 scess	-					-			
	career_success	-								
	5	-								
In [58]:					respo		2.50 2.75	3.00		
	x_tr mdl mdl.	ain,x_tes = Logisti fit(x_tra	st,y_tr icRegre ain, y_	ain,y_ ession(train)	test=train	gisticRegressi _test_split(X,		=0.2,random_s	state=1)	
	prin prin plt. plt.	t("Accura scatter() plot(X['r	cted va acy (LG X['resp respons	lue (L R): ", onsibi sibilit	GR): ",premdl.score() lities'], 'ies'], mdl	d[1]) X[:100], Y_[:1 Y_, color='b') .predict(X),co)	linewidth=3)		
	plt. plt.		class')			y_score, preci	.sion_score,	recall_score,	, f1_score, confusion_matrix	
	accu prin # Pr prec	t(" <mark>Accura</mark> ecision ision = p	acy:", orecisi	accura	re(y_test,					
	# Re reca prin	ll = reca t("Recall	all_sco	re(y_t	est, pred)					
	f1 = prin # <i>Co</i> conf	f1_score f1_score t("F1 Score nfusion N _matrix =	ore:", Matrix = confu	f1) usion_m	natrix(y_te	st, pred)				
	prin Pred Accu	t("Confus t(conf_ma lcted val racy (LGR	atrix) Lue (LG	R): 1						
		8-								
	class	6 -	`	\setminus		\star				
		2 -	/		X					
	0	0 - 1.00	1.25	1.5		2.00 2.25 consibilities	2.50 2.7	75 3.00		
	Prec. Reca. F1 S Conf	facy: 0.9 Ision: 0. Il: 0.964 Core: 0.9	.957246 1937910 9610767	883856	5942 8	oonsibilities				
In [59]:	[[5	72 59] 18 1321]] <i>ISION TRE</i> sklearn.] EE CLAS .tree i	mport	DecisionTr	eeClassifier af_nodes=3, ra	andom state=1	.)		
	mdl. pred prin prin	fit(x_tra = mdl.pr t("Predic t("Accura	ain, y_ redict(cted va acy (LG	train) x_test lue (L iR): ",	GR): ",predmdl.score(d[0]) X[:100], Y_[:1	L00])*100)			
	plt. plt. plt. plt.	olot(X['r klabel('r ylabel('d show()	respons respons class')	ibilit ibilit	ies'], mdl ies')	Y_, color='b') .predict(X),co	olor='black',		, f1_score, confusion_matrix	
	# Ac accu prin # Pr	curacy racy = ac t("Accura	ccuracy acy:",	_score accura	(y_test, p	red)				
	prin # Re reca	t("Precis	sion:", all_sco	preci ore(y_t	re(y_test, sion) est, pred)	pred)				
	# F1 f1 = prin # Co	Score f1_score t("F1 Sco	e(y_tes ore:", Matrix	t, pre f1)	,	st "				
	prin prin Pred	_matrix = t("Confus t(conf_ma lcted val racy (LGR	sion Ma atrix) Lue (LG	trix:" R): 1		st, pred)				
		8 - 0		_						
	class	6 -	\		\times	$\downarrow \rangle$				
	0				\times		$\langle \ \ \rangle$			
		0 - 1.00	1.25	1.5	50 1.75	2.00 2.25	2.50 2.7	75 3.00		
	Prec. Reca. F1 S	racy: 0.8 Ision: 0. Il: 0.937 Core: 0.8	318 .821497 7910883 3758526	120921 856829	res _l 3052 9	2.00 2.25 consibilities	- Z.I			
In [51]:	[[3:	sklearn.] Metrics .metric	s impo	rt mean_ab	solute_error				
	regr regr scor y_pr	sklearn. essor=Lir essor.fit	.linear nearReg t(x_tra sor.sco ssor.pr	_model ression,y_t in,y_t re(x_t	import Linn() rain) rain,y_tra x_test)	nearRegression				
	from mse= r2=r mae= prin	sklearn. mean_squa 2_score() mean_abso t("Mean S	.metric ared_er y_test, olute_e Square	ror(y_ y_pred rror(y Error	ort mean_abotest,y_pred) '_test,y_pro of Linear	ed) Regression", m		l_error, r2_so	core	
	prin prin Mean R2 s	t("R2 sco t("Mean a Square E core of L	ore of absolut Error o Linear	Linear e Erro f Line Regres	Regression or of Linea ar Regress sion 0.9639		mae) 2445270837			
In [52]:	rf_m rf_m		domFore (x_trai	stRegr .n, y_t	essor(n_es rain)	ForestRegresso timators=100,		e=42)		
	mse= r2=r mae= prin prin	nean_squa 2_score() nean_abso t("Mean S t("R2 sco	ared_er y_test, olute_e Square ore of	ror(y_ y_pred error(y Error Random	test,y_pred) /_test,y_pro of RandomFo Forest Reg	ed) prest Regressi ression",r2)	.on", mse)	l_error, r2_so	core	
	prin prin Mean R2 s	t("R2 sco t("Mean a Square E core of R	ore of absolut Error o RandomF	Random e Erro f Rand orest	Forest Reg or of Randon omForest Re Regression		ssion", mae) 704691431103 4555			
In [55]:	svr= svr.		el='rbf ain,y_t ctions	rain) on the	test set					
	y_pr # Ev mse= r2=r mae=	eds=svr.p aluate th nean_squa 2_score() nean_abso	oredict he mode ared_er y_test, olute_e	(x_tes l ror(y_ y_pred error(y	test,y_pred () v_test,y_pre	eds)	ssion"			
	prin prin prin Mean R2 se	t("Mean S t("R2 sco t("Mean a Square E core of S	Square ore of absolut Error o Support	Error Suppor e Erro f Supp Vecto	of Support t Vector Ror of Suppo ort Vector r Regression	Vector Regres egression", r2) rt Vector Regr Regression 0. on 0.951326373 or Regression	cession", mae) 020182708559 024555	763923		
In [57]:	from mdl mdl. y_pr	sklearn. = Decisi fit(x_tra edr=mdl.p	.tree i ionTree ain,y_t oredict	mport Regres rain) (x_tes	DecisionTrosor(max_de	eeRegressor	ota121.	220		
	mse= r2=r mae= prin prin	2_score() mean_abso t("Mean S t("R2 sco	ared_er y_test, olute_e Square ore of	ror(y_ y_pred rror(y Error Suppor	_test,y_pro of Support t Vector Ro	edr) Vector Regres egression",r2))			
	prin Mean R2 s	Square Ecore of S	<mark>absolut</mark> Error o Support	e Erro f Supp Vecto	ort Vector r Regression	egression",r2) rt Vector Regr Regression 0. on 0.665236968 or Regression	ression", mae) 186020799748 9005273	84514		
In []:										