

Experiment No: 2

100	Aim! Select appropriate dotacet and perform
	o data preprocescing o istopo : ulmont (
L.	a) striputation those loveren privations bi
	til) Anomalyd detections as at moras
-	iii) standardization de de bacasta
	i d'emplies de indimibiles de seilemente.
	V) Encodingdeleni transprograf va stravs
0	Theory:
	notheritable (iii
0	i) Finipotation a vlovai midpaibanhante (=
	> Imputations is vallprocess of replacing
	missing or incomplete data with substituted
	Nailu es attinoplo val loitases si sinte
	Mising data consoligation various issues
	visucha los data competiona or humaniterror.
	Hondling missing data correctly vites toucial
	to avoid sibials and inaccuracies in ML
	model.
•	Common imputation dechniques involves!
	value std (a)
	a) Meon/Median Imputation
	=> Replace missing values with mean or median
	of the column. This is is witable for
60	inumeric data to solor noitostlomoli =
	sange, ringically [0,1] on [-1,7]
100	to Formand Backword Hill 10100129 51 17
	=) Use this previous for next observation to Fill missing values, which is useful for time-series
	Fill missing values, which is useful for time-series

Experiment No: 1

mud	Anamaly of detection ongo tools i mil
	=) Anomaly detection on is so the process of
	identifying uneway parterns that thousand
	conform to expectedo behavioris ofter
	referred to as outliers. Theobrob? (iii
	Anomalies on indicated extrarsolved & le
-	events or important inelahoriboonil
	Theart:
	iri) Standardization
	- standardization involve viescalling the
1	feature to that they share to mean of
D 9+1,+	This ast atandardnodeviation profession
70:	This is resential for algorithms without
	assumés or normally idistributed b doitainor
	featurestos or prissing prisher.
	The formulator of betandardizations istin
9	· 13 borr
	- (mandardipiredo - no il o brancio meanta).
	Value std (m)
	mitotograti noibaminosm (o.
median	=> Replace miceing values with meaning
	in Mormalization . mouls att 70
11	=) Normalization scales the dota to autixed
	range, typically [0,2] or [-2,2].
7	It is especially weeful for algorithms that
(3)3	its id like of doille, soulor prissing 117
11-22-30	in the mach of the strict is not the



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	The Min-Max Normalization Formula is:
	Normalized = on - min (n) Value man (n) - min (n)
	D) Encoding converts the categorical data into numerical format so that machine learning algorithm can process it. Common encoding dechniques are:
	a) Label Encoding => Convert each unique category into a unique integer.
	b) Ordinal Encoding > Used For eategorical Features that have a natural order, such as "low", "medium", "High!".
-	- Each contegory is accioned an indeger based on its order.
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