Intelligent system and Robotics. Feature extraction is a key Processi & in machine learning and Data analysis that involves transforming saw data into a cet of 1000 features (Variables, attributes, or characteristics that can be used for model training. ive deep reasoning put madically exists recetance comité d'haditiones inethodis the good is to reduce to the Complexity of the date while settining escential informating on that helps the model make accurate, brediction or Classification. Tapes of teating extraction backled to Key Point of feature extraction. 1) Finerble (omponent Anolyeis: . (PCE) 0000 1. Dimensionality Reduction- Leature extraction Reduces the number of voriables white maintaining the most important informati this helps in avoiding overfitting and Improves male performances -: day) Bismont Ansaiosia Sport (c used for dimensionality reduction wasto 2 Transferming roken deute: - 17 Converts raw data into a Structured tormat suitable for machine machine learning INTESSMINTES CASCONTAM. This may involves

1 2 3 4 5 6 7 8 9 10 M y menical encoling, Text Bucessing. or image pixel extraction, depending on the deta type.



3. Improving model performing mance 1-pillevell « extracted features can increase the accuracy efficiency, and generalizability of the other hand. ensilont sono so solvations (2010) 29(1) 29(1) 4. Automotion. - Some Advanced Techniques Tike deep learning Automatically extract features write traditional method, may 1200 Kequire marrial degign of domain tector the destal while actions of theory of the that the 1981 the model would be accorded by edingthe Types of feature extrection method! Rely Point of Feature extraction. 03001) Principle Component Analysis: - (PCA) Reduces the dimensionality by the transforming deuter into principle Component Analysis that capture the most variance in this hope in avoiding overfitting out Impoved madel perferonce (2) Linear Discoment Analycis (LDA):-Used for dimensionality Reduction while to Presoning - Clase Sepresility of said stops and becomplete a object who are Saltable ter watering weeting teer outstant 3) Bay 10 of words (for Text) 2017 5 M T W T F S S M 1 2 3 4 5 6 7 8 14 15 16 17 18 19 20 21 22 28 29 30 31

on the data type



Saturday 27

Convert text into numerical Representation by conclounting was occupances, which con then be used for Analysis.

whost of Hooders of the order of the testion (unit) Histogram cof conted Grandients

(HOGI, ofer mayes) = Extruct features for

images by computing gradients and orientations

of Pixels.

1640), may and & Devotos? 20 310 () U () D

approximate most ship to the tency and account (s) waveret Transform: - (for Signal Processing used fer time series Duta to capture both

Bequency and location information

Domain! -Application

Tept Duta 1 - features like word frequency on-gram, or TF-IDF are extracted from 28 text for Natoral long ways Brocking to

2) image Data: - Pixel intensities, edges, or texture Proformation are extracted or Analyse images.

29 Monday



Time Series - Extracting features like toend Time Series - Extracting properties (means wardeng from time Series Data)

from time Series Data

from time Series Data

Data - Extracting feature

Audio or speech pater - Extracting feature

Copstral Coefficient

Company the tiest likeous speech pleognitter

Confecture extraction plays a Couring role in

Improving model efficiency and accuracy by

aspects of the Data are its early by

aspects of the Data are its early