Identifying Patterns and Trends in Campus Placement Data using Machine Learning

Project Description:

Campus recruitment is a strategy for sourcing, engaging and hiring young talent for internship and entry-level positions. College recruiting is typically a tactic for medium- to large-sized companies with high-volume recruiting needs, but can range from small efforts (like working with university career centers to source potential candidates) to large-scale operations (like visiting a wide array of colleges and attending recruiting events throughout the spring and fall semester).Campus recruitment often involves working with university career services centers and attending career fairs to meet in-person with college students and recent graduates.Our solution revolves around the placement season of a Business School in India. Where it has various factors on candidates getting hired such as work experience,exam percentage etc., Finally it contains the status of recruitment and remuneration details.

We will be using algorithms such as KNN, SVM and ANN. We will train and test the data with these algorithms. From this the best model is selected and saved in .pkl format. We will be doing flask integration and IBM deployment.

Project Flow:

- User interacts with the UI to enter the input.
- Entered input is analyzed by the model which is integrated.
- Once model analyzes the input the prediction is showcased on the UI

To accomplish this, we have to complete all the activities listed below,

- Data collection
  o Collect the dataset or create the dataset
- Visualizing and analyzing data
  o Univariate analysis
  o Bivariate analysis
  o Multivariate analysis
  o Descriptive analysis
- Data pre-processing
  o Checking for null values
  o Handling outlier
  o Handling categorical data
  o Splitting data into train and test

Project Flow:
Create the Project folder which contains files as shown below

- We are building a flask application which needs HTML pages stored in the templates folder and a python script app.py for scripting

- rdf.pkl is our saved model. Further we will use this model for flask integration.

- Training folder contains a model training fi

Milestone 1: Define Problem / Problem Understanding

● Activity 1: Specify the business problem
Refer Project Description

● Activity 2: Business requirements

The business requirements for a project aimed at "Identifying Patterns and Trends in Campus Placement Data using Machine Learning" would likely include the following:

❖ Access to campus placement data: The project would require access to data on student performance, qualifications, and job placement outcomes. This data would need to be collected, cleaned, and prepared for analysis.

❖ Machine learning expertise: The project would require individuals with expertise in machine learning, data science and statistical analysis to develop and implement the algorithms and models needed to analyze the

Activity 3: Literature Survey
(Student Will Write)

❖ There have been several studies that have used machine learning techniques to identify patterns and trends in campus placement data.

❖ One study by authors P. K. Rajesh and Dr. G. R. Suresh, published in the International Journal of Computer Science and Mobile Computing in 2015, used k-means clustering and decision trees to analyze campus placement data and identify patterns that could be used to predict placement outcomes.

❖ Another study by authors V.V. Kulkarni and K.S. Patil, published in the International Journal of Engineering Research and Technology in 2012, used decision tree and neural network algorithms to analyze campus placement data and identify factors that influence student placement.

❖ A study by authors S.S. Bhosale, S.S. Raut, and D.S. Kulkarni, published in the International Journal of Emerging Research in Management & Technology in 2013, used decision tree and Naive Bayes algorithms to analyze campus placement data and predict student placement outcomes.

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❖ In general, these studies found that machine learning techniques were effective at identifying patterns and trends in campus placement data, and could be used to predict student placement outcomes with high accuracy.

❖ It's important to note that all these studies are quite old now and you might find more recent studies and new techniques which