

Guided Projects Artificial Intelligence & Machine Learning

Guided Projects: Feature Engineering

Exploratory Factor Analysis

Exploratory factor analysis or EFA is a statistical technique used to reduce data to a smaller set of summary variables and to explore the underlying structure of a relatively large set of variables. It is used to identify the underlying relationships between measured variables. Each observed variable is considered as a potential measure of every factor, and the goal is to determine the strongest relationships.

Question:

Factor analysis is a useful technique to find latent factors that can potentially describe multiple attributes, which is sometimes very useful for dimensionality reduction. Use the **Airline Passenger Satisfaction dataset** to perform factor analysis. (Use only the columns that represent the ratings given by the passengers, only 14 columns). Choose the best features possible that helps in dimensionality reduction, without much loss in information.

Airline Passenger Satisfaction dataset

Dataset Link: <https://www.kaggle.com/teejmahal20/airline-passenger-satisfaction>