

Microsoft Azure Machine Learning simplifies data analysis and

Use data analysis to take your business to a whole new level.

empowers you to find the answers your business needs. The question isn't whether you can find the answers.

The question is how.



I WANT TO:

So, what do you want to find out?

Predict

Values



Anomaly Detection Identify and predict rare or unusual data points.

Estimate product demand

Predict sales figures

Clustering **Discover** Separate similar data points **Structure** into intuitive groups.

Regression

Forecast the future by

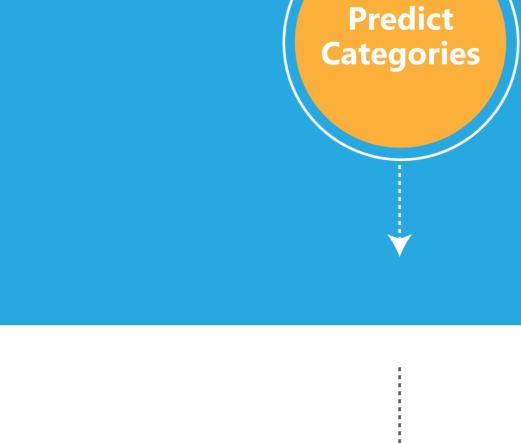
estimating the relationship

Perform customer segmentation Predict customer tastes Determine market price

Identify what category new

information belongs in.

Classification





two-choice questions, like yes-or-no, true-or-false.

Answers simple

Is this tweet positive? Will this customer renew their service?

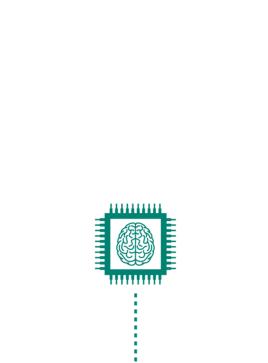
STEP 01

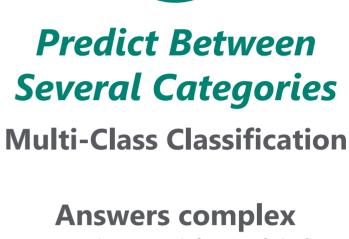
Get the data. Car rental could spike

depending on time of day,

holidays, weather, etc.





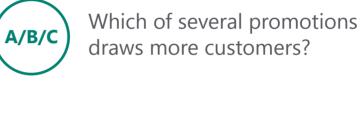


questions with multiple possible answers.

What is the mood

Which service will this customer choose?

of this tweet?



Azure Machine Learning works by teaching the software to find patterns in the current data so that it can seek out the patterns in future data.

STEP 05

Predict future demand.

Use the model to forecast

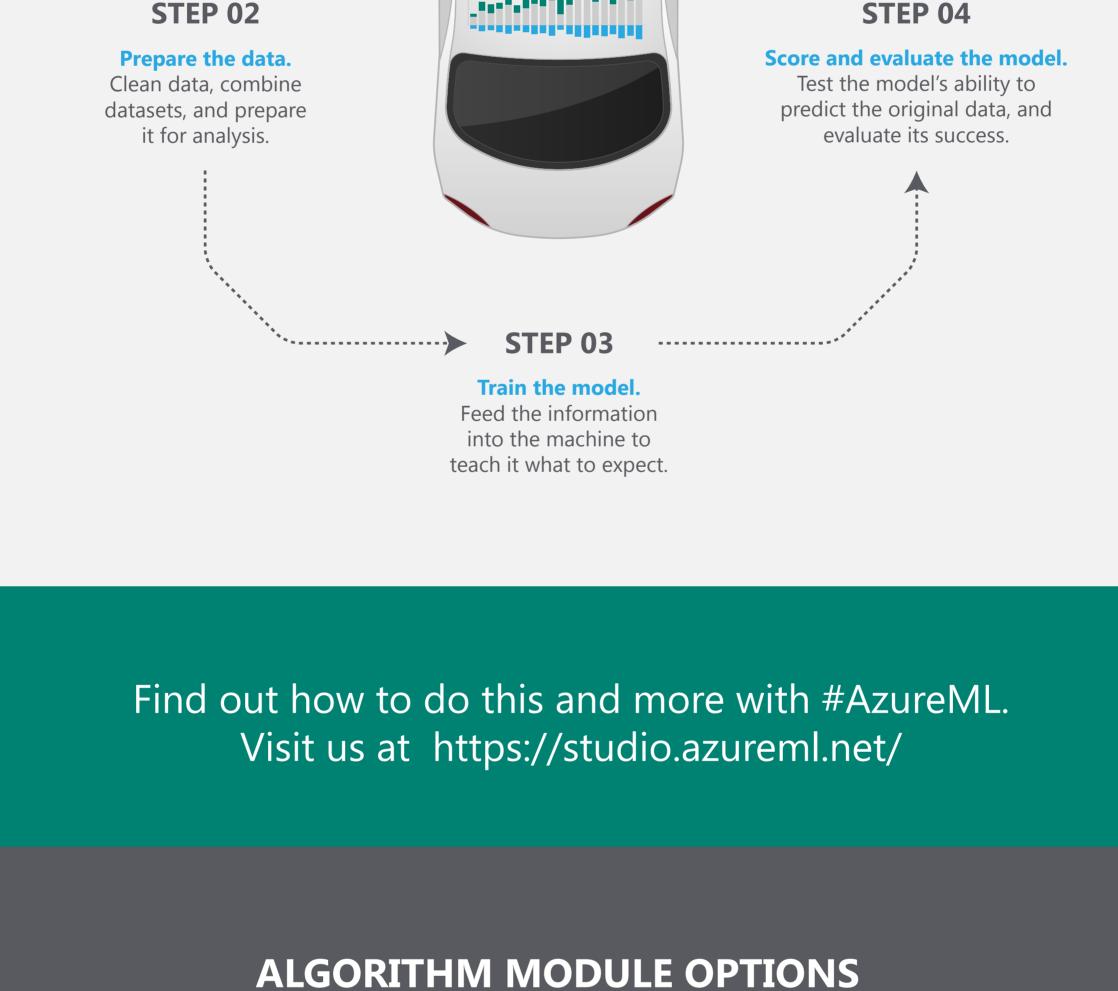
future spikes and

shortfalls in demand.

Let's say you rent cars. How can you accurately predict

FOR THAT YOU NEED REGRESSION ANALYSIS

demand for your product?



Predicts a distribution categories model counts

Fast forest quantile

regression

Decision Forest

Regression

Accurate, fast

training times

Regression

Poisson Regression

Predicts event

Neural Network

Regression

Accurate, long

training times



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Ordinal Regression

Data in rank ordered

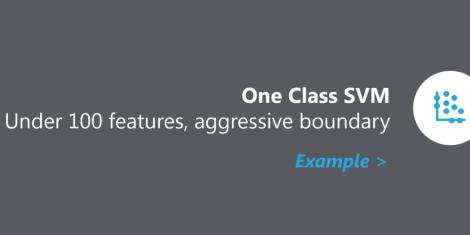
 $Y \mid X$

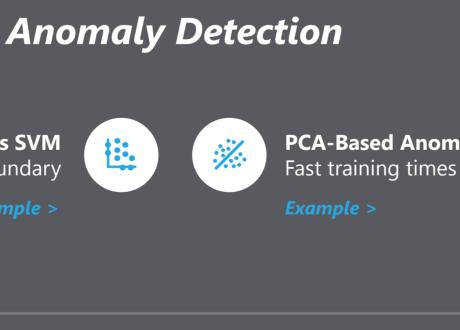
Bayesian Linear

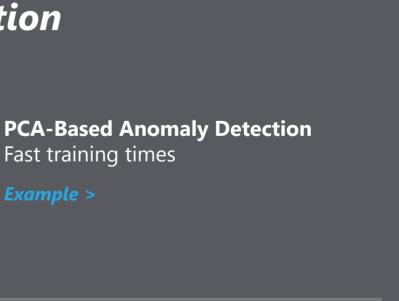
Regression

Linear model, small

data sets







Linear Regression

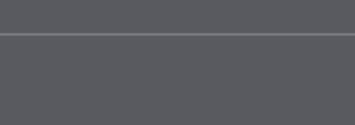
Fast training, linear

Boosted Decision

Tree Regression

Accurate, fast training times,

large memory footprint



Two-Class Classification

Clustering

K-Means

Unsupervised learning



Two-class

decision forest

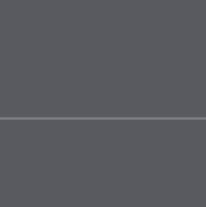
Accurate, fast

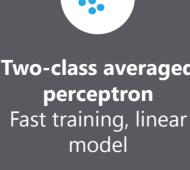


decision jungle

Accurate, small

memory footprint







model









Multiclass

decision forest

Accuracy, fast

training times

Two-class Bayes

point machine

Fast training, linear

model

Two-class boosted

decision tree

Two-class

neural network

Accurate, long

training times

Multiclass neural



