Decision Trees   Classification (machine learning)   Machine Learning
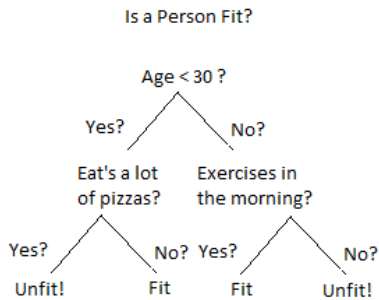
In what real-world applications is the decision tree classifier used?

4 Answers

Dimensionless, Machine Learning lovers
Answered Nov 2, 2018

Introduction

Life is all about making decisions. We keep on making decisions in both voluntary and involuntary state. This phenomenon has influenced a wide area of machine learning, covering both classification and regression. In decision analysis, a decision tree can be used to visually and explicitly represent decisions and decision making. As the name goes, it uses a tree-like model of decisions.

What is a Decision Tree

A decision tree is a tree-shaped diagram that people use to determine a course of action or show a statistical probability. An organization may deploy decision trees as a kind of decision support system. In a decision tree, each branch represents a possible decision, occurrence or reaction. The structured model allows the reader of the chart to see how and why one choice may lead to the next, with the use of the branches indicating mutually exclusive options.

Applications in Real Life

1. **Selecting a flight to travel**

   Suppose you need to select a flight for your next travel. How do we go about it? We check first if the flight is available on that day or not. If it is

---

Related Questions

🖊 **Still have a question? Ask your own!**

What is your question?	Ask

2. **Choosing a best friend**

Well, this example can be very subjective but nevertheless, we will proceed with it. We all have many friends but a best friend is always one or two maybe but not all for sure. In this case, we may go about first whether the other person understands you or not? If another person is not pretty much understanding, we look for someone else. When we find people who have a good understanding level, we look for people who have similar habits or hobbies as we have and the selection criteria go on till we find people whom we can call "close friends"!

3. **Handling late night cravings**

I guess the following picture will explain it all to you.

Applications in Business

1. **Alternatives**

Decision trees help organisations to view alternatives to different events that can happen. For example, an organisation is planning to build a new product. A lot of resources and money will be invested in it. Decision trees will help the organisation to have a look at all other alternatives if they do not want to build the product from scratch. Alternatives may include not building the new product at all or bringing modifications to existing products to incorporate new features in them

2. **Events**

An event is an occurrence that happens outside your direct control and as a result of your actions. In the example of whether to change the technical stack of the platform, the possible results from the decision to proceed would be the development of a successful product or a product

---

Related Questions

In what real world applications is Naive Bayes classifier used?

What are the advantages of using a decision tree for classification?

What are some practical business uses of decision trees?

What are the disadvantages of using a decision tree for classification?

What are some advantages of using a random forest over a decision tree given that a decision tree is simpler?

What is the target variable in a decision tree?

What is a decision tree in business?

What is the Gini index decision tree?

What is the use of Kruskal's algorithm in real applications?

How is a decision tree used in decision analysis?

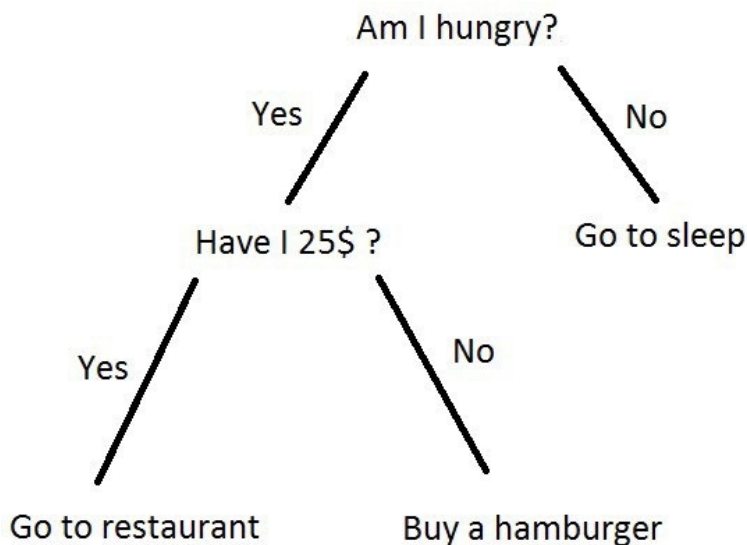**+ Ask New Question**

✏️ Still have a question? Ask your own!

What is your question?   Ask

product, expecting it to generate total profits of $100,000. The probability of developing a successful product might be 80 %. As a result, you have an 80 % chance of earning $100,000, a 20 % chance of earning nothing if the product fails, and a 100 % chance of earning no additional profit if you don't develop the product.

4. **Decisions**

You are trying to decide whether to approve a development budget for an improved product. You are urged to do so on the grounds that the development, if successful, will give you a competitive edge, but if you do not develop the product, your competitor may—and may seriously damage your market share. Decision trees help organisations in taking necessary decisions by visualising all the possible actions that can follow a particular decision and the final outcome for the chosen decision.

Other applications may include

1. Churn Analysis
2. Sentiment Analysers
3. Investment Solutions
4. High Customer Satisfaction

495 Views · View 3 Upvoters

Related Questions   More Answers Below

In what real world applications is Naive Bayes classifier used?

What are the advantages of using a decision tree for classification?

What are some practical business uses of decision trees?

What are the disadvantages of using a decision tree for classification?

What are some advantages of using a random forest over a decision tree given that a decision tree is simpler?

+ **Ask New Question**

Dmitriy Fradkin, PhD Computer Science (2006)
Answered May 30, 2018

They have been applied to pretty much every classification problem with a feature vector you can think of: credit scoring, crime risk, medical diagnosis, failure prediction, etc.

Here is a one review of papers from 1993-1995 and it is already not short: 2.8 Selected real-world applications ⬀

1k Views · View 1 Upvoter

✏ **Still have a question? Ask your own!**

| What is your question? | Ask |

Related Questions

In what real world applications is Naive Bayes classifier used?

What are the advantages of using a decision tree for classification?

What are some practical business uses of decision trees?

What are the disadvantages of using a decision tree for classification?

What are some advantages of using a random forest over a decision tree given that a decision tree is simpler?

What is the target variable in a decision tree?

What is a decision tree in business?

What is the Gini index decision tree?

What is the use of Kruskal's algorithm in real applications?

How is a decision tree used in decision analysis?

+ **Ask New Question**

Search for questions, people, and topics

Ask New Question Sign In

Label millions of images for machine learning with 99% accuracy. Spin up a team now!

↗ Learn more at cloudfactory.com

Rishi Chandra, Researcher at Hitachi RnD (2012-present)
Answered Oct 25, 2018

1. They are mostly used as ensembles : bagging or boosting (mostly boosting).

2. Boosted trees are most useful when you have unbalanced class distribution, e.g. cancer vs non-cancerous cell classification where cancerous cells are rare say 1%.

3. Trees are less prone to skews in data. If the data is not normalized, skewed, then trees are more robust to such scenarios.

250 Views · View 2 Upvoters

Amogha Bandrikalli, Asst. Prof (2017-present)
Answered Oct 6, 2018

Random forest is one of the classifier method works on decision tree. The applications can be

If verfying the warmness of the link through voting from many people.

If data is random based on the voting method you get the output

282 Views · View 1 Upvoter

Related Questions

What is the target variable in a decision tree?

What is a decision tree in business?

What is the Gini index decision tree?

What is the use of Kruskal's algorithm in real applications?

How is a decision tree used in decision analysis?

What are the decision trees in machine learning?

When should I use the decision tree Classifier in a machine learning model?

How can I create a decision tree algorithm in Java?

What are some applications of decision trees?

What are the best books about the decision tree theory?

What are other trees apart from a decision tree?

What is the simple explanation of entropy as used in decision trees?

What is skewing in decision tree algorithm?

What is a decision tree algorithm?

How machine learning is useful in real world?

✎ Still have a question? Ask your own!

What is your question? Ask

Related Questions

In what real world applications is Naive Bayes classifier used?

What are the advantages of using a decision tree for classification?

What are some practical business uses of decision trees?

What are the disadvantages of using a decision tree for classification?

What are some advantages of using a random forest over a decision tree given that a decision tree is simpler?

What is the target variable in a decision tree?

What is a decision tree in business?

What is the Gini index decision tree?

What is the use of Kruskal's algorithm in real applications?

How is a decision tree used in decision analysis?

+ Ask New Question

🔍 Search for questions, people, and topics   **Ask New Question**   Sign In

---

About · Careers · Privacy · Terms · Contact

Related Questions

In what real world applications is Naive Bayes classifier used?

What are the advantages of using a decision tree for classification?

What are some practical business uses of decision trees?

What are the disadvantages of using a decision tree for classification?

What are some advantages of using a random forest over a decision tree given that a decision tree is simpler?

What is the target variable in a decision tree?

What is a decision tree in business?

What is the Gini index decision tree?

What is the use of Kruskal's algorithm in real applications?

How is a decision tree used in decision analysis?

➕ **Ask New Question**

✏️ **Still have a question? Ask your own!**

What is your question?   Ask