Introduction

5 questions

1.

A computer program is said to learn from experience E with

respect to some task T and some performance measure P if its

performance on T, as measured by P, improves with experience E.

Suppose we feed a learning algorithm a lot of historical weather

data, and have it learn to predict weather. In this setting, what is T?

○   The process of the algorithm examining a large amount of historical weather data.

◉   The weather prediction task.

○   The probability of it correctly predicting a future date's weather.

○   None of these.

2.

The amount of rain that falls in a day is usually measured in

either millimeters (mm) or inches. Suppose you use a learning

algorithm to predict how much rain will fall tomorrow.

Would you treat this as a classification or a regression problem?

◉   Regression

○   Classification

3.

Suppose you are working on stock market prediction, and you

would like to predict the price of a particular stock tomorrow

(measured in dollars). You want to use a learning algorithm for this.

Would you treat this as a classification or a regression problem?

○   Classification

◉   Regression

4.

Some of the problems below are best addressed using a supervised

learning algorithm, and the others with an unsupervised

learning algorithm. Which of the following would you apply

supervised learning to? (Select all that apply.) In each case, assume some appropriate

dataset is available for your algorithm to learn from.

☑ Given 50 articles written by male authors, and 50 articles written by female authors, learn to predict the gender of a new manuscript's author (when the identity of this author is unknown).

☐ Examine a large collection of emails that are known to be spam email, to discover if there are sub-types of spam mail.

☑ Given historical data of children's ages and heights, predict children's height as a function of their age.

☐ Take a collection of 1000 essays written on the US Economy, and find a way to automatically group these essays into a small number of groups of essays that are somehow "similar" or "related".

5.

Which of these is a reasonable definition of machine learning?

⚪ Machine learning is the science of programming computers.

⚪ Machine learning is the field of allowing robots to act intelligently.

🔘 Machine learning is the field of study that gives computers the ability to learn without being explicitly programmed.

⚪ Machine learning learns from labeled data.

Submit Quiz

👍 👎 🏳

Introduction

✓ 5/5 questions
correct

Quiz passed!

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✔ 2.

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✔ 3.

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✔ 4.

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✔ 5.

Which of these is a reasonable definition of machine learning?