Tuesday Jan 21, 2024

Name:

Discuss and complete the following questions with the person nearest you. You **may** be asked to share your thoughts with the class.

1. Consider the following problem descriptions. What type of machine learning approach would you recommend (e.g., what type of generalization behavior do you want, what type of learning, what type of model)?

Note: In assessing your responses, I would consider a range of possibilities as long as you can justify your choices given the desired task.

a. You have Amazon Reviews with star ratings and want to predict the ratings on new reviews.

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Supervised machine learning with model-based learning
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b. You are writing a program to generate a course schedule that fulfils all distribution areas given a machine-readble version of the requirements.

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Good old fashion AI
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c. You administer a campus WiFi network and want to identify Internet traffic that deviates from typical student use and may indicate a cyberattack.

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Unsupervised learning with instance-base learning
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d. You are developing a stock trading algorithm that learns by making trades, seeing whether total portfolio value increases or decreases, and then adjusts its strategy.

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Supervised learning (regression) with model-based learning
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e. You are curator at a museum and want to group art into themes for potential exhibits.

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Unsupervised learning with model-based learning
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f. You want to train a robot to wlk in various terrains.

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Reinforcement learning
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