Constructing Features for Prediction
Practice Assignment • 28 min

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🌐 English ⌄

Your grade: 91.66%

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To pass you need at least 80%. We keep your highest score.

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1. Which of the following is TRUE about coarse coding? (Select all that apply)   1 / 1 point

    ☑ In coarse coding, generalization occurs between states that have features with overlapping receptive fields.

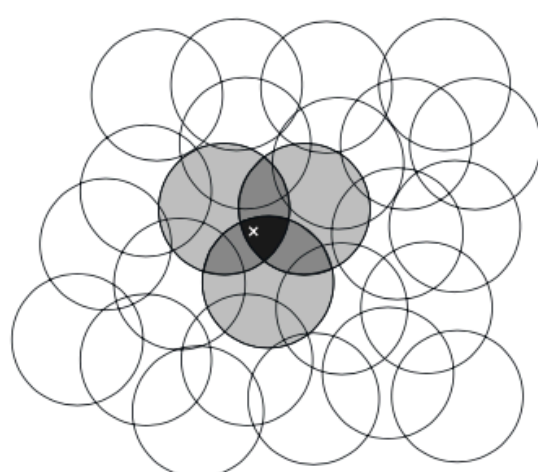   ⊘ **Correct**
    Correct.

    ☑ In coarse coding, generalization between states depend on the size and shape of the receptive fields.
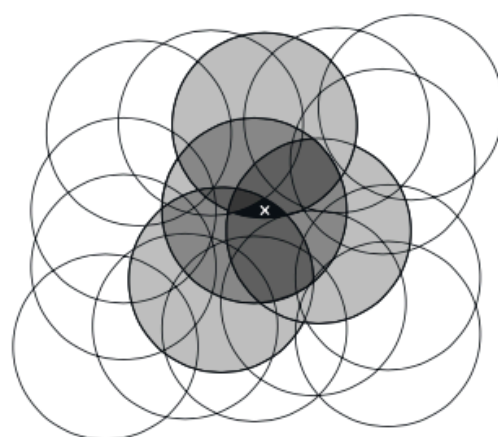
    ⊘ **Correct**
    Correct.

    ☐ When using features with large receptive fields, the function approximator cannot make discriminations that are finer than the width of the receptive fields.

    ☐ When training at one state, the learned value function will be updated over all states within the intersection of the receptive fields.

2. Consider a continuous two-dimensional state space. Assuming linear function approximation with the coarse-codings in either   1 / 1 point
    A, B or C, which of the following is TRUE? (Select all that apply)
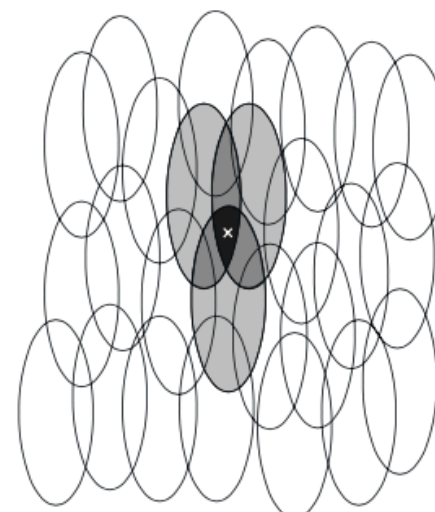

    A   B   C

    ☐ Generalization is broader in case A as compared to case B.

    ☑ In case B, when updating the state marked by an 'x' , the value function will be affected for a larger number of states as compared to case A.

    ⊘ **Correct**
    Correct. In case B, the receptive fields of the features are larger and include a larger number of states.

    ☑ In case C, each update results in more generalization along the vertical dimension, as compared to horizontal dimension.

    ⊘ **Correct**
    Correct. Updates to the state marked by the 'x' change the values for more states further away in the vertical dimension, as indicated by the greyed areas.