Introduction to Machine Learning-2

Assignment Questions

PW SKILLS

Q1: Define overfitting and underfitting in machine learning. What are the consequences of each, and how can they be mitigated?

Q2: How can we reduce overfitting? Explain in brief.

Q3: Explain underfitting. List scenarios where underfitting can occur in ML.

Q4: Explain the bias-variance tradeoff in machine learning. What is the relationship between bias and variance, and how do they affect model performance?

Q5: Discuss some common methods for detecting overfitting and underfitting in machine learning models. How can you determine whether your model is overfitting or underfitting?

Q6: Compare and contrast bias and variance in machine learning. What are some examples of high bias and high variance models, and how do they differ in terms of their performance?

Q7: What is regularization in machine learning, and how can it be used to prevent overfitting? Describe some common regularization techniques and how they work.

Note: *Create your assignment in Jupyter notebook and upload it in GitHub & share that github repository link through your dashboard. Make sure the repository is public.*