Assignment-39

11-10-2021

MACHINE LEARNING

Q1. A

Q2. A

Q3. A

Q4. C

Q5. C

Q6. D

Q7. D

Q8. A

Q9. C

Q10. A

Q11. A, B, C

Q12. A, B

Q13. Explain the term regularization?

Regularization is a technique used for tuning the function by adding an additional penalty term in the error function. The additional term controls the excessively fluctuating function such that the coefficients don't take extreme values. This technique of keeping a check or reducing the value of error coefficients are called shrinkage methods or weight decay in case of neural networks.

Q14. Which particular algorithms are used for regularization?

Regularization Algorithms-There are many types of algorithms used for regularization. I find these algorithms particular useful. The general idea behind these algorithms is that we try to minimize and even prevent overfitting.

- Ridge Regression (L2 Regularization)
- Lasso Regression (L1 Regularization)
- Least-Angle Regression (LASR)
- Elastic Net

Q15. Explain the term error present in linear regression equation?

An error term is a residual variable produced by a statistical or mathematical model, which is created when the model does not fully represent the actual relationship between the independent variables and the dependent variables. As a result of this incomplete relationship, the error term is the amount at which the equation may differ during empirical analysis.

The error term is also known as the residual, disturbance, or remainder term, and is variously represented in models by the letters e, ε, or u.