A DEEP DIVE INTO ARTIFICIAL INTELLIGENCE

Insurance Regression Assignment:

Multiple linear regression:

R score=78%

Support vector machine:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.NO | KERNEL | DEGREE | GAMMA | C | R SCORE |
| 1 | linear | 3 | Scale | 0.1 | -0.11 |
| 2 | Poly | 3 | Scale | 0.1 | -0.08 |
| 3 | Rbf | 3 | Scale | 0.01 | -0.08 |
| 4 | Sigmoid | 3 | Scale | 0.1 | -0.08 |
| 5 | Linear | 3 | Auto | 0.1 | -0.12 |
| 6 | Rbf | 3 | Scale | 1000 | -0.11 |
| 7 | linear | 3 | Scale | 10000 | 74% |
| 8 | Rbf | 3 | Scale | 100 | -0.12 |
| 9 | linear | 3 | scale | 100 | 54% |

R score=74%

Decision Tree Regression:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | CRITERION | SPLITTER | R SCORE |
| 1 | Friedman\_mse | random | 66% |
| 2 | Friedman\_mse | best | 68% |
| 3 | Squared\_error | random | 70% |
| 4 | Squared\_error | best | 69% |
| 5 | Absolute\_error | Random | 69% |
| 6 | Absolute\_error | Best | 67% |
| 7 | poisson | Random | 72% |
| 8 | poisson | Best | 71% |

R score=72%

Random Forest Regression:

R score=84%

CONCLUSION:

Hence,Random forest regression is the best suitable algorithm as the r score value is the possible nearest to 1 as it denotes a good model.

Team Members:

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