02216531_Coursework1.zip

by Eric Li

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FINAL GRADE

GENERAL COMMENTS

69 /100

GRADING FORM: MARKING SCHEME BSC

ERIC LI	**69**

TASK 1.1 (10 MARKS)

✏️ **10**

TASK 1.2 (8 MARKS)

✏️ **8**

TASK 1.3 (15 MARKS)

✏️ -1 no sufficient explanations / comments

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TASK 1.4 (10 MARKS)

✏️ -1 did not visualise calculated OOB errors
-1 optimal choice of B unjustified
-1 insufficient discussion

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TASK 2.1 (17 MARKS)

✏️ -1 incorrect implementation of the Huberised loss function
-2 forgot to learn the bias due to lack of intercept in X
-1 incorrect/missing obtention of the training data points outside the margin for Huberised SVM
-1 incorrect/missing obtention of the training data points outside the margin for SVM with hinge loss
-0.5 incorrect Huber function as a function of $yf(x)$
-1 insufficient discussion

10.5

TASK 2.2 (10 MARKS)

✏️ -1 did not standardise again for each fold
-0.5 incorrect plots of the modified Huber function
-2 did not explicitly mention how to decide the

3.5

optimal lambda and c
-2 forgot to learn the bias in cross-validation
-0.5 incorrect implementation of balanced accuracy
-0.5 insufficient final discussion

TASK 3.1 (20 MARKS)

-1 mistake in the implementation of the gradient of compound loss function
-1 mistake in the implementation of the R2 score
-1 applied activation function to the wrong layers
-1 trained MLPs on standardised data against the instructions
-0.5 did not plot training convergence for the three different values of lambda in same figure (it does not facilitate the comparison)
-0.5 mistake in a formula reported in the text
-1 did not discuss the test R2 performance for different values of lambda
-2 did not explain the observed differences
-1 no high-quality plots (font sizes too small)
-2 no adequate/sufficient explanations (no explanation for using inverse dropout)

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TASK 3.2 (10 MARKS)

-0.5 incorrect activation function
-1: no comparison made between dropout and non-dropout loss plots
-1: no comparison made between dropout and non-dropout histogram plots
-0.5 incorrect mini-batch size

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