

02216531_Coursework2_Part1

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FINAL GRADE

GENERAL COMMENTS

23 /30

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GRADING FORM: COURSEWORK 2 PART 1

ERIC LI

23

TASK 1.1 (10 MARKS)



- 1 mistake in the implementation of the MSE loss (incorrectly divides by number of features)
- 0.5 incorrect computation of the per-feature reconstruction error on the test set
- 1 did not explain the reasons for the MSE values for the first 10 features (i.e., due to their sign and the effect of final ReLU)

7.5

TASK 1.2 (10 MARKS)



- 1 reinitialised the encoder, while we asked the evaluate the encoder's output of the previously trained autoencoder
- 1 did not keep the encoder from 1.1 frozen
- 0.5 did not comment on possible reasons as to why R2 score is not extremely high

7.5

TASK 2.1 (6 MARKS)



- 0.5 implementation of $n(\delta)$ not justified
- 0.5 did not discuss that nodes with treatment=1 form a more densely connected sub-component of the graph
- 0.5 did not explain that the difference in the spectral layout is due to treatment inducing similar gene expression for the nodes with treatment=1

4.5

TASK 2.2 (4 MARKS)



- 0.5 did not explain that nodes with treatment=1 have higher degree because treatment induces similar patterns of gene expression (leading again to higher cosine similarity)

3.5