PGT Exam Performance Feedback
2017/2018 Semester 1

COMP61021   Modelling and visualization of high-dimensional data   Ke Chen

Comments

Almost of all the students attempted all the questions in two sections. Their marks are roughly subject to a normal distribution. The highest mark is 82% but the lowest mark is only 26%.

For multiple choice questions in Sect. A, the averaging mark of this section is around 61.7% with standard deviation of 12.3% overall. Apart from a few of very easy or very hard questions, the mistakes made seem diversified across the remaining questions. Two questions that stood out to be extremely hard are regarding a property of dimensionality reduction and the matrix calculus of a function in the quadratic form. For these two questions, only less than 25% students gave the correct answers.

Regarding Sect. B, most of students generally performed well for question B.1 and B.2, two questions regarding the book knowledge and those answers can be found in the lecture note. A common mistake spotted is that some students did not fully understand the elements of LDA in a multi-class situation as they did not give a correct expression for the between-class scatter matrix. Regarding question B.2, most of students gave a correct answer but the necessary details in that last step regarding the use of the linear MDS for embedding source data in the target space were missing. Regarding the formal analysis question in B.3, around half of students made an attempt. I am pleased to see that a couple of students presented a correct proof. Overall, however, the performance on this formal analysis question was generally poor but reasonable since students who can answer this question must master the formal analysis skills and transferable knowledge, a goal set for only those exceptional top-tier students.

In summary, the overall performance this year appears similar to that of the cohort in last year although there are much more students registered to this course unit this year. It is worth mentioning that the distribution of examination marks looks quite consistent with that of the lab and coursework assessment although the performance in examination is generally poorer than that in the lab exercises and coursework.