Dear Prof. Yao

I am ZHONG Guangzheng. Here is my assessment for following 5 reports.

1.
Title : Robust PCA for Moving Object Detection in Video

Author : Chris HC Nguyen and James M Shihua

Summary :
This project exemplifies the detection and removal of moving objects in videos using Robust Principal Component Analysis (RPCA). By using the RPCA algorithm, each frame of the image series is separated into a low-rank background matrix and a sparse moving object matrix, so that the moving objects in the background can be identified and eliminated.

The strengths of the report :
The method that is proposed is efficient and easy to understand. The optimization process is stated clearly in pseudocode.

The weaknesses of the report :
The data and experimental result could be described in more detail.

Evaluation on Clarity and quality of writing : 3.

Evaluation on Technical Quality : 5.

Overall rating: 4.

Confidence on your assessment : 2

2.
Title : Explore and Play with SNPs Data for Fun

Author : CUI Yiran

Summary :
This project perform PCA, kernel-PCA, MDS, and random projection on SNPs dataset.

The strengths of the report :
The figure is clear and easy to understand. The results obtained by different methods are completely compared. The computational cost is also considered.

The weaknesses of the report :
The meaning of results could be stated more clearly.

Evaluation on Clarity and quality of writing : 5.

Evaluation on Technical Quality : 3.

Overall rating: 4.

Confidence on your assessment : 2

3.
Title : EXPLORING THE EFFECTIVENESS OF PCA ON HANDWRITTEN DIGIT DATASET

Author : JIA Guangnan

Summary :
This project applies PCA on the handwritten digit dataset. Moreover, the K-mean and logistic regression methods are performed on low dimentional data obtained from PCA.

The strengths of the report :
The PCA components and image reconstruction are visualized, which enhance the explain-ability of learning method.

The weaknesses of the report :
The introduction of PCA method could be stated more technically with formulation.

Evaluation on Clarity and quality of writing : 5.

Evaluation on Technical Quality : 4.

Overall rating: 4

Confidence on your assessment : 2

4.
Title : Human Migration History: A Single Nucleotide Polymorphisms Perspective

Author : Lue Shen

Summary :
This project applies PCA, MDS and t-SNE methods on the SNPs dataset

The strengths of the report :
The data distributions is displayed. The results obtained from above methods is complete. The explainations of results are clear.

The weaknesses of the report :
The figures should follows the text that they are metioned.

Evaluation on Clarity and quality of writing : 4.

Evaluation on Technical Quality : 3.

Overall rating: 4.

Confidence on your assessment : 2

5.
Title : Image Inpainting with PCA

Author : Qiqi ZHOU

Summary :
This project applies PCA for dictionary learning, which inpaint the handwriting digits dataset.

The strengths of the report :
The idea of dictionary learning is clever. The method that proposed shows great performance on impainting problem on handwriting digits dataset.

The weaknesses of the report :
The impainting result could be analyzed with more detail and examples.

Evaluation on Clarity and quality of writing : 3.

Evaluation on Technical Quality : 5.

Overall rating: 4.

Confidence on your assessment : 2

The above is my assessments for 5 reports.

Best Regards,
ZHONG Guangzheng