Principles of Data Science Project 1
Dimension Reduction

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To Xuanrui Hong:
请先完成 Method 部分
截止日期：周六晚 24 点
提交方式：`git`

- 可以使用 ppt 上的图片、公式，使用公式必须要完整体现这个方法的内涵
- 可以参考维基百科，但需要做一定的改写, i.e. paragraph
- 参考文献获取途径：前往 `sci-kit learn` 官方网站，搜索对应的方法，如 PCA，在相应文档页面查找是否有参考文献。或者找到左上角 User Guide，寻找相应内容，如 2.Unsupervised Learning-2.5.Decomposing signals in components (matrix factorization problems)
- 可以参考往届报告，行文风格、参考文献等，但不必每个方法处处都引用

Abstract

TODO: Hongzhou Liu

1 Method

1.1 Feature Selection

1.1.1 Select-k-best

TODO: Xuanrui Hong

1.1.2 Variance Threshold

TODO: Xuanrui Hong

1.1.3 Tree-based Selection

TODO: Xuanrui Hong

1.2 Feature Projection

1.2.1 PCA

TODO: Xuanrui Hong

1.2.2 LDA

TODO: Xuanrui Hong

1.3 Feature Learning

1.3.1 t-SNE

TODO: Xuanrui Hong

1.3.2 LLE

TODO: Xuanrui Hong

1.3.3 AutoEncoder

TODO: Xuanrui Hong

2 Experiment

2.1 Baseline

TODO: Hongzhou Liu

2.2 Feature Selection

2.2.1 Select-k-best

TODO: Xuanrui Hong

2.2.2 Variance Threshold

TODO: Xuanrui Hong

2.2.3 Tree-based Selection

TODO: Xuanrui Hong

2.3 Feature Projection

2.3.1 PCA

TODO: Qilin Chen

2.3.2 LDA

TODO: Qilin Chen

2.4 Feature Learning

2.4.1 t-SNE

TODO: Qilin Chen

2.4.2 LLE

TODO: Qilin Chen

2.4.3 AutoEncoder

TODO: Qilin Chen

3 Conclusion

TODO: Qilin Chen

Acknowledgement