

Math 320 – Computer Methods in the Mathematical Sciences I.

Project Title: Principal Component Analysis

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1 Presentation

Comments:

- Slides do a good job of giving intuition.
- You do a nice job of addressing your audience directly, and answering people's questions.
- Small example with data: good.
- It would have been nice to see the PCA of the data example visualized.

Grade: 9.5/10 Great presentation – would have benefited with some more explicit examples and computations.

2 Paper

Comments:

- Code is well-implemented with good comments.
- Good idea to include complexity discussion!
- Toy example is nicely implemented.
- Comparison of PCA to OLS is nicely done – good job including the graphs of the two lines. Putting them on the same graph would have made the comparison even clearer.
- Sections 6 and 7 are interesting, but it is not clear from your exposition what insight the PCA adds.

Grade: 9.5/10

Overall a clear and well-structured exposition of PCA. It would have benefited from some explanation of how PCA practically aids data analysis.