

IS Report

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18 February 2025

1 Work Done

- Read and submitted a report on "Visualizing High-Dimensional Data by Space Expansion" by Xinrui Zu and Qian Tao.
- Revised the report and paper based on the received comments.
- Began exploring the idea of subspaces forming concentric regions.
- Prepared concentric rings for subspaces.
- Continued working on concentric subspaces, as discussed in the previous two meetings.
- Read several additional papers, including SAMP-Viz by Huijie Zhang and Data Visualization and Feature Selection by Howard Hua Yang. However, I set aside the latter as it is not currently relevant. I also forgot to prepare a report for SAMP-Viz as the reading was not complete.

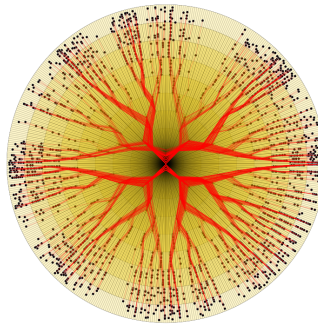


Figure 1: Diabetes Dataset - 9d

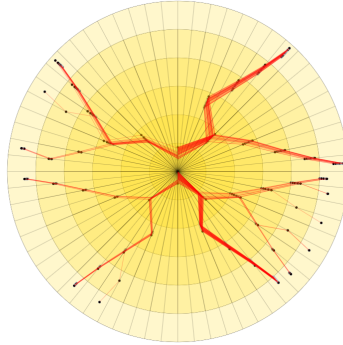


Figure 2: Iris Dataset- 4d

- Understanding and comparing the current work with the previously existing work. (Example SAMP-Viz compares parallel coordinates, dimensional projection etc with their work; This can be useful for my work as well)

2 To Do

- To do a separation using colors for positive and negative points.
- Zoom feature implementation
- Decide on permutation of subspaces using variance metric
- Implementation of visualizing the output of layers of neural network and the overlap of points in various subspaces.
- Make a Donut sort of structure for high-dimensional data
- IMP: To start writing a paper on all this.

3 Next Paper

Since I do not have much knowledge on neural network, I'll try to read "Learning Neural Network Subspaces" by Mitchell Wortsman, if it is relevant.