Weekly Progress

Week 2

Summary

- Research on project topics.

Next steps:

- Topic selection
- Discuss with lab instructors

Week 3

Summary

- Finalized Project topic -Predicting cardiovascular Disease Risk
- Finalized 3 data sets

  Framingham data set

  UCI data set

  Cardiomegaly image data set

References

Next steps

- Get ready for project pitch.
- Make presentation.
- Analyze Data

Week 4

Summary

- Project pitch presentation
- Project topic and directions.
- Get reviewed by lab instructors

Next steps

Data exploration, analysis and preprocessing

Week 5

Summary

- Data Exploration and analysis and preprocessing for each 3 data sets.

Challenges

- Imbalanced data set.

Next steps

Week 6

Clustering.

Week 7

Baseline training and evaluation experiments

Week 8

Baseline training and evaluation experiments

Week 9

MLP for UCI data set

Week 10

Summary

- Build basic CNN model for image Dataset consists of 4 convolutional layers followed by pooling layers. One fully connected layer and output layer. Used ‘Relu’ as activation function of hidden layers and used ‘Sigmoid’ as activation function of output layer. Trained it with default parameters.

Challenges

- model overfitting
- Low accuracy

Next steps

- Train model with different parameters.
- Avoid overfitting
- Improve accuracy of model

Week 11

Summary

- Trained CNN model with different batch sizes, learning rates and used cross fold validation to evaluate the measures accuracies, loss, recall, precision and f1score. Was able to increase accuracy

- Code merged and documentations