Mid-Term Report

1. Project Title: Adaptive k‐Nearest‐Neighbor Classification

2. Group Members: Manasa Venkatakrishnan, Purushotham Kaushik Swaminathan

3. Summary of activities so far:

* Implemented the ΔN criteria and the classification rule suggested in Theorem 1 in the paper and tested it on fisheriris data
* Performed Fisher Discriminant analysis to reduce CIFAR-10 data to 9 dimensional feature space
* Ran the implementation on the CIFAR-10 data for various confidence levels and compared the accuracy with k-NN with k being equal to zN.

4. Summary of efforts remaining: (A list of to-do tasks.)

* To implement the PV and PN criteria
* Further experiment with various confidence levels for the criteria; compare results with that in the paper.
* If time permits, perform a feature selection algorithm on the input to improve accuracy.

5. If you are asked to assign a percentage to what you have completed so far towards your project, what will that number be (e.g., 20%, 30%, 90%, etc.)?

30%

6. The final report is due on \_Dec 4, 2015\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. The poster presentation of the project will be on \_Dec 4, 2015\_\_\_\_\_\_\_\_\_\_\_\_.