

## CNT 6154 Advanced Applied Machine Learning Outline

1. Introduction
2. Anaconda / Python
3. Packages for Machine Learning
4. Supervised Machine Learning
5. K-Nearest Neighbor
6. Model Generation
7. Linear Regression
8. Logistic Regression
9. Regularization
10. Gradient Descent
11. Classification Error Metrics
12. Naive Bayes
13. Grid Search Pipeline
14. Support Vector Machine
15. Decision Tree
16. Unsupervised Learning
17. K-Mean Clustering
18. Dimensionality Reduction
19. Ensemble Algorithms
20. Classification Error & Entropy
21. Neural Network
22. Bagging
23. Boosting
24. Stacking
25. Hierarchical Agglomerative Clustering
26. Multi-Dimensional Scaling
27. Anomaly Detection
28. Data Science Life Cycle
29. Research Project