Project Outline

1. Replicate Accuracy of Original Research
2. Using Our Network and Data Set – achieve the same level of accuracy as the original study.
3. Improve Network by Adding Hidden Layers
4. Experiment with Hidden Layers to Increase Accuracy of Network
5. Test Network by Varying Data
6. Predict the Final Grades of Students Accurately
7. Attempt to Improve Data Set by Removing Unnecessary Features
8. Experiment with Differing Activation Functions, Learning Rates, Optimizers, and Bias Weights
9. Data Testing
10. Control Trial – Predict Final Grades with all Features
11. Experimental Trials – One Feature will be Removed per Trial
12. Record Mean Accuracy for Every Trial
13. Use the Recorded Means to Identify the Two Most Influential Features for Predicting a Students Final Grade
14. Plot the Two Features on a 3D Graph with the Final Grade being the Third Variable.