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**Subject: Project 8**

**Class: DSCI 512**

**Section: 01W**

**Instructor: Dr. Nengbing Tao**

**File Name: Project8\_Kungulio\_Seif.docx**

1. Load the dataset CreditCards.csv into memory.

A computer screen shot of a computer code

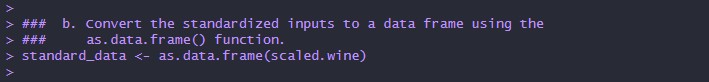
AI-generated content may be incorrect.

1. Preprocess the inputs
   1. Standardize the inputs using the scale() function.

A computer screen with white text

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* 1. Convert the standardized inputs to a data frame using the as.data.frame() function.



* 1. Split the data into a training set containing 3/4 of the original data (test set containing the remaining 1/4 of the original data).

A computer screen shot of a program

AI-generated content may be incorrect.

1. Build a neural networks model
   1. The response is quality and the inputs are: volatile.acidity, density, pH, and alcohol. Please use 1 hidden layer with 1 neuron.

A computer screen with text

AI-generated content may be incorrect.

* 1. Plot the neural networks.

A diagram of a network

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* 1. Forecast the wine quality in the test dataset.

A screenshot of a computer

AI-generated content may be incorrect.

* 1. Get the observed wine quality of the test dataset.

A screenshot of a computer

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* 1. Compute test error (MSE).

A computer screen shot of a computer screen

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