

Project 3 Writeup

Leroy S., Nikil G., Amit R,

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The First Task

Hi this is a test

The Second Task

The second task involved a multinomial classification problem where we had to determine, on a given dangerous wire diagram, which wire to cut. To fulfill this purpose, we used a softmax regression model that output a number for the wire to be cut. The right wire to be cut, as stated in the project 3 writeup, would be the 3rd wire to be placed down.

We numbered the wires as follows:

1. Red
2. Blue
3. Yellow
4. Green

Input Space:

Output Space:

Model space:

The loss on my model is measured through the categorical cross entropy loss function. This loss function is used to measure the error between the predicted output and the actual output. The categorical cross entropy loss function is defined as follows:

$$CE = - \sum_{i=1}^N y_i \log(\hat{y}_i) \quad (1)$$

Here, y is the actual output and \hat{y} is the predicted output. N is the number of data points we have

Bonus