CS 5540 Project 1

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1 Determining Neuron Sensitivity

1.1 Stimulus Class

The stimulus class is used to give an object definition in Java for each particular stimulus. We define the stimulus as an enum, so there are no fields that we have to extend for each stimulus. The stimuli are used as a defining piece of data our construction of the Neuron Class.

1.2 Neuron Class

This is a class that we developed in order to accurately represent a neuron. The defining feature of the class is the map that is representative of the spike trains that are recorded for each stimuli. We define the map as *spiketimes*, which is a hashmap which takes a stimulus as a key and outputs a double array detailing all of the spike times for that particular stimulus.

1.2.1 sensitive Stimuli

This is a simple method to compute (roughly) whether a neuron is sensitive to a a particular stimulus. We first create an outer loop to iterate through the list of all possible stimuli

We also have a method that computes of

1.3 DataParser

In order to use the data provided within the text file, we had to develop a

2 Creating a Response Space

2.1 A subsection

More text.