**Computation Flow**

file\_correction.py → simulation.py → combine\_columns.py → combine\_kl\_columns.py

**file\_correction.py**

This file filters through csv files generated by Netlogo Simulation from a directory and corrects the ones where two simulations were generated into one csv file instead of just one simulation per a csv file. It splits these csv files into two with one keeping the original file name and the other ending with “\_5.csv”. It takes in a directory as an argument. Use the file but running this into the command line:

*python file\_correction.py directory*

This overwrites the file needing to be corrected and places the two corrected file back into the directory.

**simulation.py**

This file retrieves the all csv files from the directory, filters the data, utilizes Bayes Theoreom, and KL Divergence, and exports the data into another CSV ending with “\_results.csv”. It takes in a directory as an argument. Use the file but running this into the command line:

*python simulation.py directory*

This places the results file into the directory.

**combine\_columns.py**

This file retrieves all the result csv files generated from simulation.py from a directory and combines them to generate three csv files for all the Q', Likelihood, and Posterior results, which are all probabilities contributing in Bayes Theorem and also KL divergence. It takes in a directory as an argument. Use the file but running this into the command line:

*python combine\_columns.py directory*

This places the csv files ending with “\_Q.csv” , “\_likelihood.csv”, and “\_posterior.csv” into the directory

**combine\_kl\_columns.py**

This file retrieves all the result csv files generated from simulation.py from a directory and combines them to generate one csv file for all the KL divergences. It takes in a directory as an argument. Use the file but running this into the command line:

*python combine\_kl\_columns.py directory*

This places the csv file ending with “\_kl\_divergence.csv” onto the directory.