geneval.py

- read\_data\_only(mt, dataFile)

- reads in a tableau and dataFile, returns a tableau

- read\_constraints(mt, constraintFile)

- reads in a tableau and dataFile, returns a tableau

- read\_sigma(mt, sigmaFile = False)

- reads in a tableau and dataFile, returns sigma

- augment\_sigma\_k(mt, sigma, k):

- reads in a tableau, an alphabet, and a maximum string length, doesn’t return anything

- violations(constraint, word)

- reads in a constraint string and a word string, returns a positive integer

- apply\_mark\_list(mt, markList)

- reads in a megatableau and a list of constraint strings, returns a megatableau

- sigma\_k(alphabet, k)

- reads in an alphabet, a maximum string length, returns alphabet\* up to length k

- calls a helper function

- sigma\_0k(alphabet, k)

- reads in an alphabet, a maximum string length, returns alphabet\* up to length k

- calls a helper function

- sigma\_1k(alphabet, k)

- reads in an alphabet, a maximum string length, returns alphabet+ up to length k

- calls sigma\_0k

megatableau.py

- defines an object, MegaTableau

- \_\_init\_\_(self, megt\_file=None)

- initiates object

- read\_megt\_file(self, megt\_file)

- reads in a “tableau” (tab-delimited text file), doesn’t return anything

- read\_weights\_file(self, weights\_file)

- reads in a file containing constraints and weights, doesn’t return anything

- read\_priors\_file(self, priors\_file)

- reads in a file containing the mu and sigma value for a Gaussian prior on each constraint, doesn’t return anything

- write\_output(self, file\_name)

- reads in a file name, writes to a text file with that name

optimizer.py

- maxent\_value(weights, tableau, ur, sr)

- reads in a list of nonpositive weights (floats), a megatableau, and a pair of strings, returns a “real” number

- z\_score(tableau, ur)

- reads in a tableau and a string, returns a float

- presumes that you’ve called update\_maxent\_values

- update\_maxent\_values(weights, tableau)

- reads in a list of floats and a tableau, doesn’t return anything

- calls maxent\_value

- neg\_log\_probability\_with\_gradient(weights, tableau)

- reads in a list of floats and a tableau, returns a float and a gradient

- calls update\_maxent\_values and z\_score

- neg\_log\_probability(weights, tableau)

- reads in a list of floats and a tableau, returns a float

- calls update\_maxent\_values and z\_score

- probability(weights, tableau)

- reads in a list of floats and a tableau, returns a float

- calls neg\_log\_probability

- learn\_weights(mt, l1\_mult = 0.0, l2\_mult = 1.0, precision = 10000000)

- reads in a tableau, returns an array of floats

- calls neg\_log\_probability\_with\_gradient

a calls b: a b

b must be called before a: b a

data\_prob.py: (needs info about weights and violations)

probability

neg\_log\_probability update\_maxent\_values

update\_maxent\_values z\_score

maxent\_value

neg\_log\_probability\_with\_gradient

update\_maxent\_values z\_score

learn\_weights

neg\_log\_probability\_with\_gradient

geneval.py

sigma\_1k

sigma\_0k