CMSC701 Homework 1
Out: Tue, Sept. 10, 2013
Due: Monday, Sept. 16, 2013 (by midnight)
Points: 100

Submit by email to mpop@umiacs.umd.edu with subject 'CMSC701 Homework 1'

1. Given two strings of equal length A and B, describe a linear time algorithm that can determine if one of the strings is a circular rotation of the other string.

2. Implement, in a programming language of your choice, an algorithm that computes the reverse complement of a DNA string. Please provide test data as well as a README file that details all the steps necessary to get your program to work with sequences provided by the user (including any steps necessary to compile your code, if appropriate).

3. Write out, in pseudocode, an algorithm that computes the KMP sp' values using the Z algorithm.

4. Provide an example when the Boyer-Moore bad character rule will result in a running time of O(m * n).