CS 6301.502. Implementation of advanced data structures and algorithms

Fall 2017

Short Project 10: String algorithms

Fri, Nov 17, 2017

Version 1.0: Initial description (Fri, Nov 17).

Due: 11:59 PM, Sun, Dec 3.

Solve as many problems as you wish. Maximum score: 50.

1. [50 points]

Implement Tries. Starter code is provided.

2. [50 points]

Implement KMP algorithm. Use it to solve the following problem:

Given a string s, find the shortest string x such that x + s is a palindrome.

3. [50 points]

Implement Boyer-Moore algorithm.

4. [50 points]

Implement automata matcher.

5. [50 points]

Implement Rabin-Karp algorithm for string matching.