

CITS3001 Algorithms, Agents and Artificial Intelligence

Labsheet 1: String Algorithms

1. Implement and analyse the pattern matching algorithms from Lecture 2:
 - a. The naive algorithm;
 - b. Rabin-Karp (the general version); and either
 - c. Knuth-Morris-Pratt; or
 - d. Boyer-Moore

For each algorithm,

- implement it using the language of your choice, and test it appropriately.
- derive worst case and best case data for its performance

2. Implement and analyse the two LCS algorithms from Lecture 2:
 - a. a naive algorithm that directly implements the recursive rules; and
 - b. the dynamic programming algorithm.

For each algorithm,

- implement it using the language of your choice, and test it appropriately.
- derive worst case and best case data for its performance