University of Waterloo
CS240R Fall 2017
Tutorial 8
Monday, November 13

Pattern Matching

1. Let $P = \text{abacabaca}$ and $T = \text{abacabacabaca}$. Search for $P$ in $T$ using the KMP algorithm.

2. Build the suffix-skip array for the following strings: $\text{cbadabacaba}$, $\text{ingstating}$, and $\text{aabaa}$.

3. Let $P = \text{ababbcabcbab}$. Construct the last-occurrence function over the alphabet $\{a, b, c, d\}$ and the suffix-skip array. Then search for the pattern in the following text, using the Boyer-Moore algorithm:

   $\text{abababbbcbabababbbcbabcbadababbcbabcababbbcbabcbab}$