

11-711: Algorithms for NLP

Recitation #4

October 2, 2009

Simulation of CFGs with PDAs

Given the following CFG G in Greibach Normal Form

$$\begin{aligned} S &\rightarrow aB \mid aSB \mid aBS \mid aSBS \\ B &\rightarrow b \end{aligned}$$

construct a PDA M that accepts by empty stack such that $L(G) = L(M)$. Then show step by step the computation of the machine and the corresponding derivation in the grammar for the input string $abaabb$.