

# PROBABILISTIC CYK PARSING

Book the flight through Houston

<b>S: .01, VP: .1,</b> <b>Verb: .5</b> ← <b>Nominal: .03</b> <b>Noun: .1</b>	None	<b>S: .05*.5*.054</b> <b>=.00135</b> <b>VP: .5*.5*.054</b> <b>=.0135</b> ↓ <b>NP: .6*.6*.15</b> <b>=.054</b>		
	Det: .6			
		<b>Nominal: .15</b> <b>Noun: .5</b>		

S → NP VP 0.8  
 S → X1 VP 0.1  
 X1 → Aux NP 1.0  
 S → book | include | prefer  
     0.01 0.004 0.006  
 S → Verb NP 0.05  
 S → VP PP 0.03  
 NP → I | he | she | me  
     0.1 0.02 0.02 0.06  
 NP → Houston | NWA  
     0.16 0.04  
 NP → Det Nominal 0.6  
 Nominal → book | flight | meal | money  
     0.03 0.15 0.06 0.06  
 Nominal → Nominal Noun 0.2  
 Nominal → Nominal PP 0.5  
 VP → book | include | prefer  
     0.1 0.04 0.06  
 VP → Verb NP 0.5  
 VP → VP PP 0.3

Aux → does  
     1.0  
 Det → the | a | that | this  
     0.6 0.2 0.1 0.1  
 Pronoun → I | he | she | me  
     0.5 0.1 0.1 0.3  
 Verb → book | include | prefer  
     0.5 0.2 0.3  
 Noun → book | flight | meal | money  
     0.1 0.5 0.2 0.2  
 Proper-Noun → Houston | NWA