

Solution to Assignment 2, Problem 1 (c)

Akash Rana

Placeholder -Placeholder are nodes whose value is feed in at execution time. It is used to feed actual training example

Feed dictionaries - These are the values in batches that are input to while training

Solution to Assignment 2, Problem 2 (a)

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stack	buffer	new dependency	transition
...
[ROOT, parsed]	[this, sentence, correctly]	parsed → I	LEFT-ARC
[ROOT, parsed, this]	[sentence, correctly]		SHIFT
[ROOT, parsed, this, sentence]	[correctly]		SHIFT
[ROOT, parsed, sentence]	[correctly]	sentence → this	LEFT-ARC
[ROOT, parsed]	[correctly]	parsed → sentence	RIGHT-ARC
[ROOT, parsed, correctly]	[]		SHIFT
[ROOT, parsed]	[]	parsed → correctly	RIGHT-ARC
[ROOT]	[]	ROOT → parsed	RIGHT-ARC

Solution to Assignment 2, Problem 2 (b)

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A sentence containing n words will be parsed in $2n$ ways. It will take 1 step to shift the word and 1 step to do transition and there are n words. Hence, $2n$ ways.

Solution to Assignment 2, Problem 2 (g)

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1. Momentum is like a heavy ball rolling down the hill. The ball follows the steepest path with inertia which acts as a smoother and an accelerator, dampening oscillations and causing the ball to travel through small humps and local minima.
2. SOMething