PyTorch

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1. Preliminaries

1.1. Torch Tensor

Creating a tensor.

`torch.<method>(<options>)`

`arange(l, r, s)`	$(l, l+s, \cdots, l+ks) \ni l+ks < r$ and k is the largest such integer. Default: $l=0$, $s=1$.
`linspace(l, r, n)`	$(l, l+s, \cdots, r(=l+n\times s))\&s = (r-l)/n$.
`ones(<shape>)`	
`zeros(<shape>)`	
`full(<shape>, k)`	Constant tensor filled with each element $= k$.
`randn`	
`tensor`	From NDArray. Eg: `torch.tensor([1, 2, 3])`.

Tensor Properties & Operation

`shape`	
`numel()`	Number of elements. Eg, a 2×2 tensor has 4 elements.
`reshape()`	Eg: `torch.arange(8).reshape(4, 4)`
	Eg: `torch.arange(8).reshape(4, -1)`
	Use -1 to automatically infer one of the dimensions.
`cat`	Concatenate along a dimension. Specify `dim`.
`sum`	

Operations

Uncategorized