



Neural Networks are a special type of mathematical expressions.

## Forward Pass & Backward Propagation

We will implement forward Pass & Backward Pass in Python. For learning purposes,

In production,

there are multiple libraries already implemented for neural network training.

Deep learning frameworks:-

- 1) Pytorch
- 2) TensorFlow
- 3) Keras

1) Pytorch:- Meta, Indian (core) → Starting  
→ Broad → VIT  
LeKann vellore Indian  
US → mtech  
Domith chintala

2) TensorFlow → developed by Google (TPUs)

3) Keras → François Chollet → 2015

4) JAX

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In the simplest form, we want to write our own such DL library for education purpose. → micrograd

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• micrograd →

1) Forward Pass

2) Backward Pass

3) scalar values

4) suff. for binary classification.

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