

# < Part 2 > 딥러닝 사이언스 피사슬

[ Ch 02. ] Jacobian Matrix  
& Backpropagation

[ CH 00. ] 01

Lecture. 0  
Orientation

YHJ

# <Backpropagation>

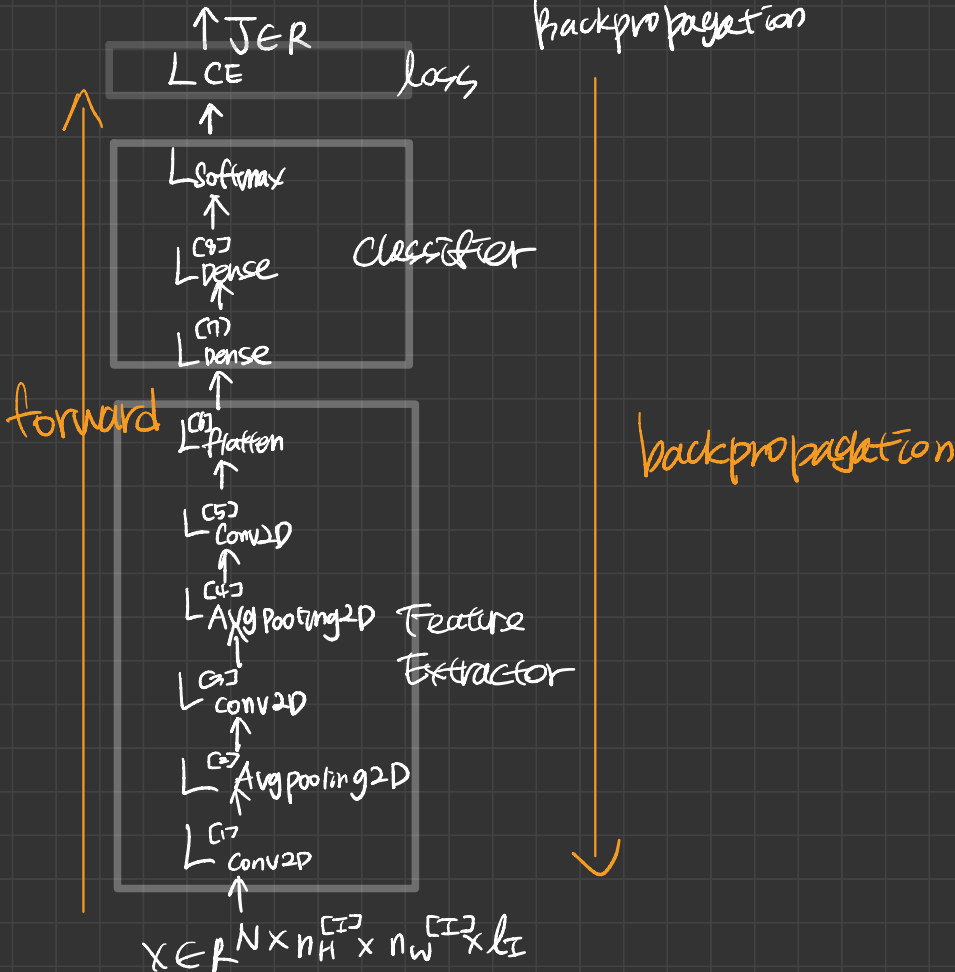
- for training neural networks

## <Chain Rule and Backpropagation>

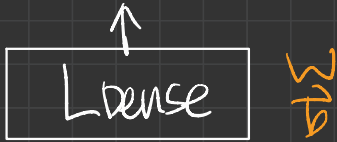
Chain rule



Backpropagation



<Tensor Parameters>



$\frac{\partial J}{\partial \vec{w}}, \frac{\partial J}{\partial \vec{b}}$

<Jacobian Matrices>

$\vec{x}$

$\vec{y}$

$f$

$\frac{\partial f}{\partial \vec{x}}$

$\frac{\partial f}{\partial \vec{x}}$

$\vec{f}$

$\frac{\partial \vec{f}}{\partial \vec{x}}$

$\frac{\partial \vec{f}}{\partial \vec{x}}$

## < Purpose of This Lecture >

- Basic principle of learning
- Basics for advanced techniques
- Improving math abilities