Convolutional Neural Network (Recap)

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May 19, 2025

May 19, 2025

KAUST Academy Convolutional Neural Network

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CNN - Definition



- Convolutional Neural Networks (CNNs) are a class of deep learning models specifically designed for processing structured grid data, such as images.
- ► They are particularly effective for tasks like image classification, object detection, and segmentation.
- ► CNNs leverage the spatial structure of images by using convolutional layers to automatically learn hierarchical features.
- ► The architecture typically consists of convolutional layers, activation functions, pooling layers, and fully connected layers.
- ► CNNs are known for their ability to capture local patterns and translate them into higher-level representations.

CNN Architecture Example



