

## Tutorial: Getting Started With Convolutional Neural Networks

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## **CNN Tutorial**

- Task#1: Train a CNN on MNIST
  - Get familiar with the Conv2D API (in PyTorch)
  - Write a training loop for CNNs
  - Implement Batch Norm on MNIST
  - Analyse and compare the results.
- Task#2: Transfer learning on ants and bees
  - Train a ResNet-18 architecture from torchvision
  - Adapt it to the new dataset
  - Study the impact of transfer learning vs. training from scratch
  - Implement data augmentation