

Chat with Your Course Videos (RAG System)

Ask a question about the course videos

Search

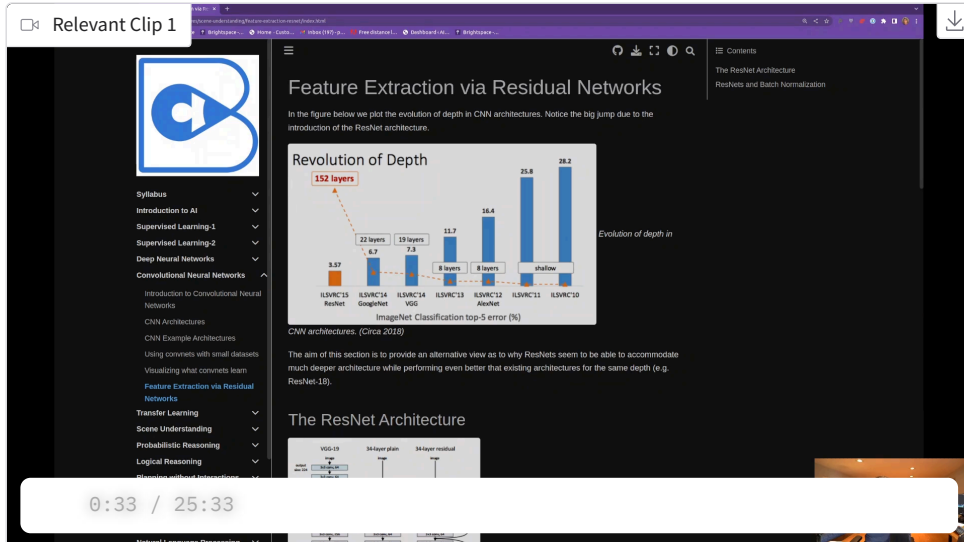
Using only the videos, explain how

ResNets work

Generated Answer

Found 3 relevant segments, but no subtitles available.

Relevant Clip 1



Feature Extraction via Residual Networks

In the figure below we plot the evolution of depth in CNN architectures. Notice the big jump due to the introduction of the ResNet architecture.

Revolution of Depth

Architecture	Depth (layers)	ImageNet Classification top-5 error (%)
ILSVRC15	22 layers	26.2
ILSVRC14	19 layers	25.8
GoogLeNet	22 layers	21.7
VGG	16 layers	26.4
ILSVRC13	8 layers	37.4
ILSVRC12	8 layers	35.4
ILSVRC11	8 layers	40.6
ILSVRC10	8 layers	41.9

Evolution of depth in

CNN architectures, (Circs 2018)

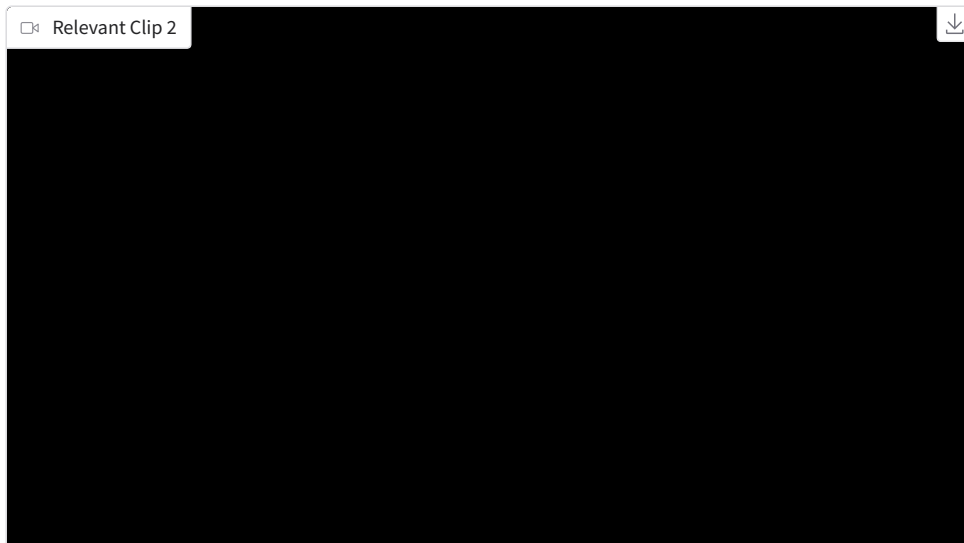
The aim of this section is to provide an alternative view as to why ResNets seem to be able to accommodate much deeper architecture while performing even better than existing architectures for the same depth (e.g. ResNet-18).

The ResNet Architecture

34 layer plain, 34 layer residual

0:33 / 25:33

Relevant Clip 2



Relevant Clip 3

