

Started on Thursday, 18 March 2021, 2:06 PM

State Finished

Completed on Thursday, 18 March 2021, 2:30 PM

Time taken 23 mins 32 secs

Grade 9.25 out of 10.00 (93%)

Question **1**

Partially correct

Mark 2.25 out of 3.00

Which of the following techniques are used obtain high resolution masks for both Semantic and Instance segmentation using deep-convolutional neural networks

- ☒ a. Use of skip connection to get low-level information to refine the masks ✓
- ☐ b. Upsampling the output through un-pooling layers
- ☐ c. Use patches learned from training data to improve low-resolution outputs.
- ☒ d. Use of Atrous convolutions ✓
- ☒ e. Use of fully-connected CRFs for refining mask boundaries ✓

Your answer is partially correct.

You have correctly selected 3.

The correct answers are:

Upsampling the output through un-pooling layers,

Use of skip connection to get low-level information to refine the masks,

Use of fully-connected CRFs for refining mask boundaries,

Use of Atrous convolutions

Question **2**

Correct

Mark 3.00 out of 3.00

Which of the following are true regarding instance segmentation problem and solutions

- ☐ a. None of the others
- ☒ b. Can be thought of as a combination of object detection and semantic segmentation ✓
- ☐ c. Is a simpler problem compared to Semantic Segmentation
- ☒ d. Consider instances of only countable classes as separate labels ✓
- ☐ e. We consider multiple instances of all classes as separate labels.

Your answer is correct.

The correct answers are:

Consider instances of only countable classes as separate labels,

Can be thought of as a combination of object detection and semantic segmentation

Question **3**

Correct

Mark 4.00 out of 4.00

Which of the following are true regarding the transpose convolution operation.

- ☒ a. Is also called up-convolution ✓
- ☒ b. Does unpooling followed by regular convolution ✓
- ☐ c. Uses nearest neighbour interpolation to upsample the image followed by regular convolution
- ☐ d. Uses bilinear interpolation to upsample the image followed by regular convolution
- ☐ e. Uses the inverse of the convolution kernel that is learned in the encoder part of the network.
- ☒ f. Learns the convolution filter during the decoder stage. ✓

Your answer is correct.

The correct answers are:

Does unpooling followed by regular convolution,

Learns the convolution filter during the decoder stage.,

Is also called up-convolution

[◀ Lecture 16,17: \(ODD\) Semantic and Instance Segmentation](#)

Jump to...

[Quiz 1 \(ODD\) ▶](#)

