

The scale problem

The Scale Problem

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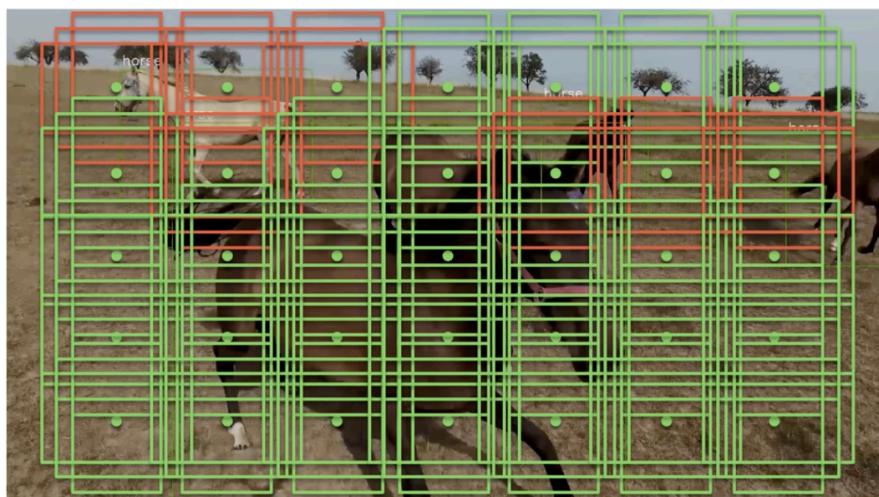
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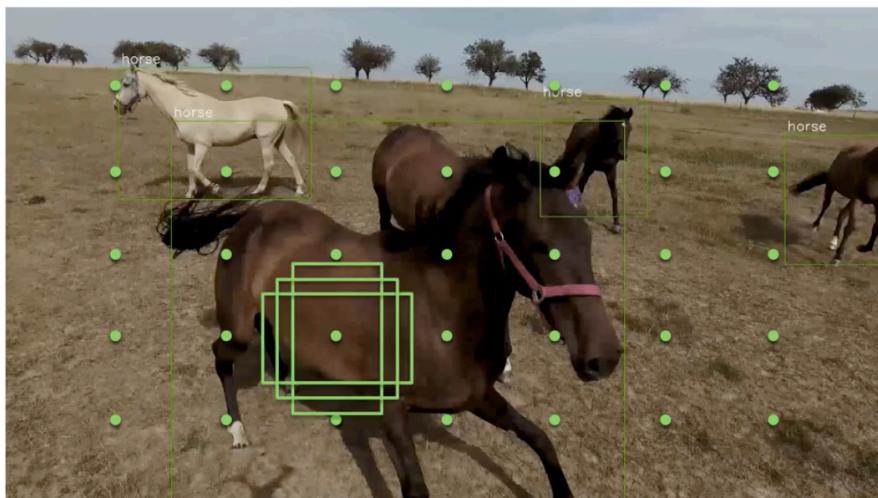


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The algorithm here couldn't recognize the big horse that the problem is with its scale.

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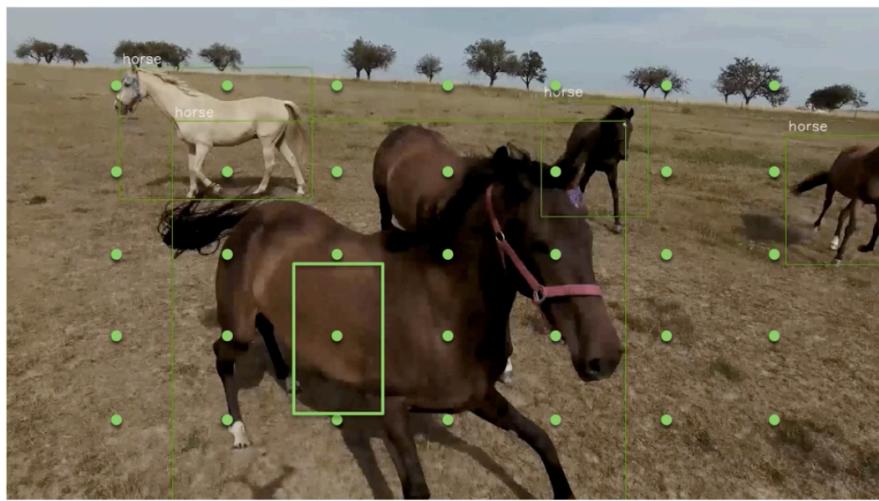


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To better understand the scale, let's consider its segments one by one

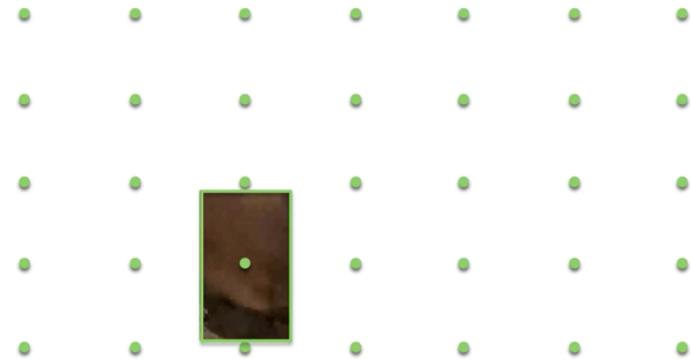
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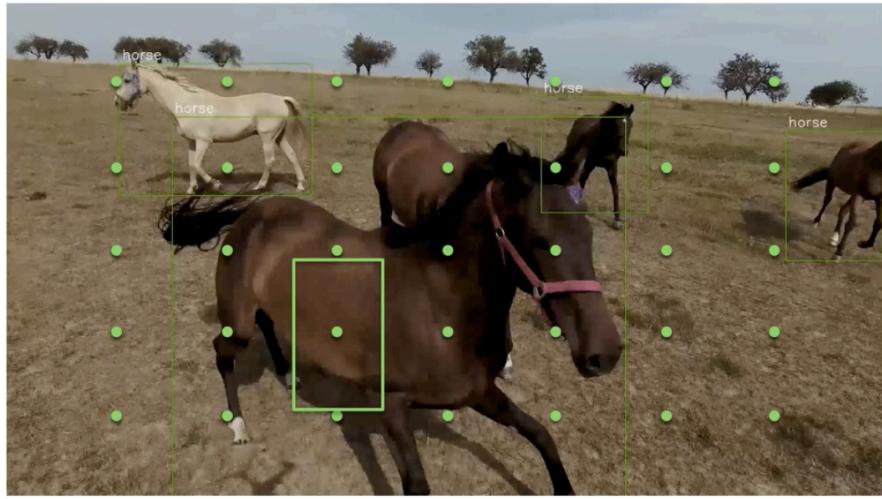


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There are lots of possibilities for this single segment.

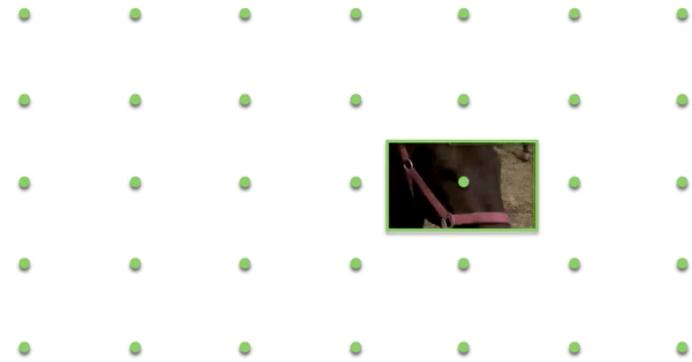
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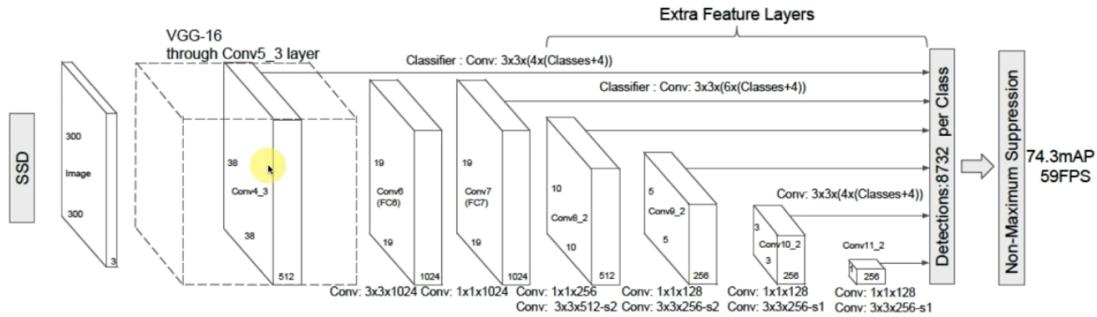


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There are even lots of possibilities for a face too.

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Source: <https://arxiv.org/pdf/1512.02325.pdf>

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For solving the problem, the picture will be reducing constant times in order to consider every single scale. There are actually 8732 detection per classes.

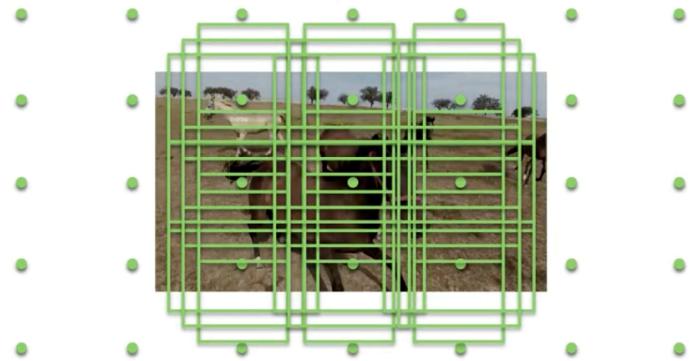
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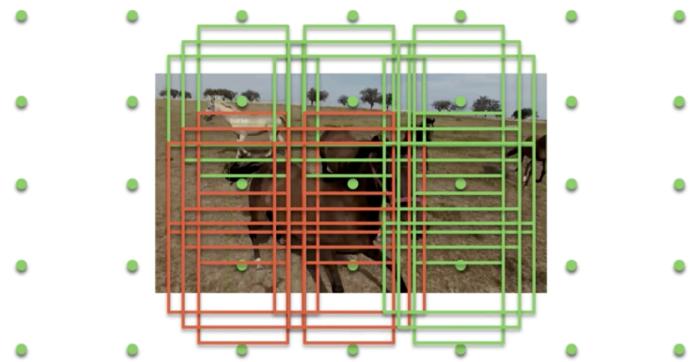
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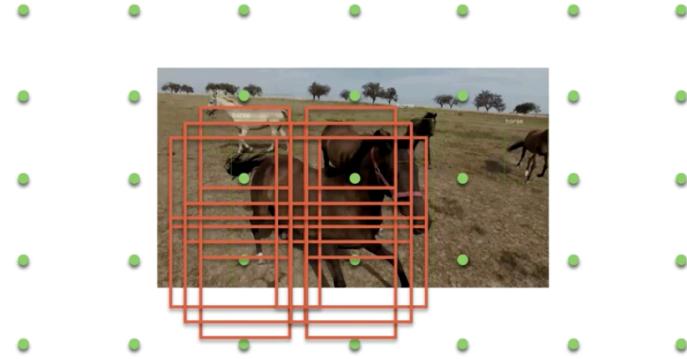


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If you notice right now the algorithm only picked up the big houses/ that's totally fine with us because we already picked them up before.

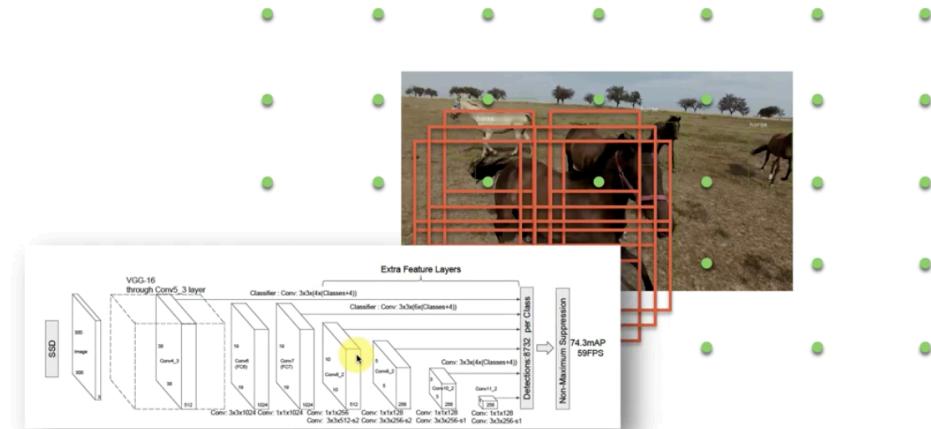
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We run all of the CNN sizes in one neural network and it won't happen one by one. The reason is to learn the pictures at one place so it has more power on detecting the objects.