Deep Dream



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Deep Dream

 Idea: want to exaggerate details in the image that look a little bit like recognizable objects

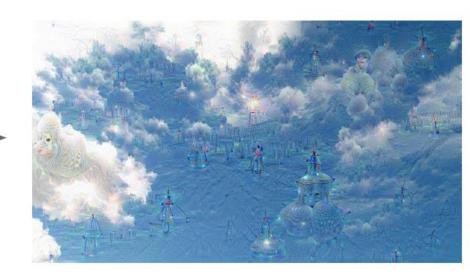
Overview

- Pick a layer in the ConvNet
- It will have some neurons that are highly activated
- There is a trade-off here: we can't make *all* of them be even more highly activated simultaneously
- Idea: make the rich get richer. Change the input x with the most highly activated neurons influencing the change in the input the most

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- Set the gradient at the layer that we picked to be equal to the activation at that layer
 - A hack: this is not the gradient at all
- Backpropagate the gradient to figure out how much to change the input
- Repeat
- Result: a feedback loop where the image looks more and more like the objects that were kind of detected at first







"Admiral Dog!"



"The Pig-Snail"



"The Camel-Bird"



"The Dog-Fish"