Deep Dream
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• 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
Change the input $x$ with the most highly activated neurons influencing the change in the input the most

- 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"