Overview:

- We propose a deep adversarial image synthesis architecture that is conditioned on sketched boundaries and sparse color strokes to generate realistic cars, bedrooms, or faces. We demonstrate a sketch-based image synthesis system which allows users to ‘scribble’ over the sketch to indicate preferred color for objects. Our network can then generate convincing images that satisfy both the color and the sketch constraints of user.

Controlling with sketch:

- Sketch-based Image editing
- Data Augmentation
- Random cropping
- More sketch styles

Controlling with color stroke:

- Guided Image Colorization

Controlling with sketch and color stroke:

- VGG-19
- Pixel loss
- Feature loss
- Overview of our network
- Adversarial loss