



deeplearning.ai

Neural Style Transfer

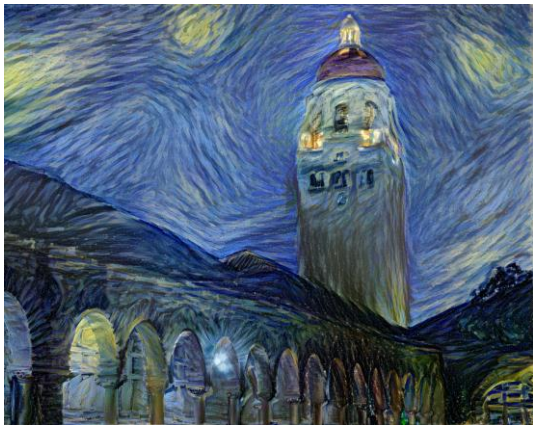
Cost function

Neural style transfer cost function



Content C

Style S



Generated image G

$$\mathcal{J}(G) = \alpha \mathcal{J}_{\text{content}}(C, G) + \beta \mathcal{J}_{\text{style}}(S, G)$$

Find the generated image G

1. Initiate G randomly

G: $\underline{100} \times \underline{100} \times \underline{3}$

↑
RGB

2. Use gradient descent to minimize $J(G)$

$$G := G - \frac{d}{2G} J(G)$$

