



deeplearning.ai

Neural Style Transfer

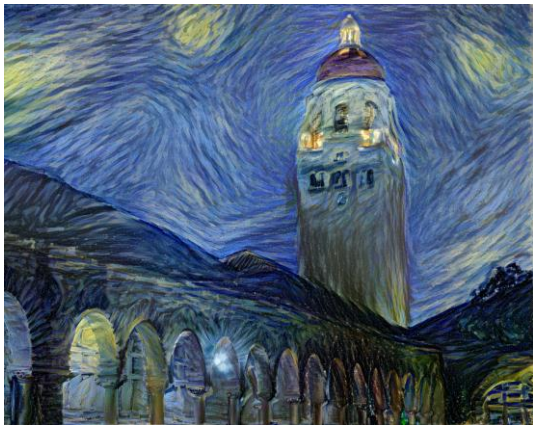
Cost function

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 $J(G)$

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

