



06/22/2018

**LIYANG GUAN**

has successfully completed

**Improving Deep Neural Networks:  
Hyperparameter tuning, Regularization and  
Optimization**

an online non-credit course authorized by deeplearning.ai and offered through  
Coursera

A handwritten signature in blue ink, reading "Andrew Ng".

Adjunct Professor Andrew Ng  
Computer Science

**COURSE  
CERTIFICATE**



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