Dear user,

The Machine Learning Specialization has several new updates to enhance your learning experience. These new lessons and labs are included for free with your existing specialization, and are entirely optional — they will not impact your certification eligibility. These updates aim to expand the scope of the specialization and provide new ways to develop your skills in machine learning.

Here's what's new!

Course Two, Week Two:

- New Topic: Backpropagation (i.e. how neural network training really works)

  - 3 new lecture videos: "What is a Derivative", "Computation Graph", "Large Neural Network Example"

  - 1 new optional lab: "Backpropagation"

Course Two, Week Three:

- New Topic: Dimensionality Reduction using Principal Component Analysis (PCA).

  - 3 new lecture videos: "Reducing the Number of Features", "PCA Algorithm", "PCA in Code"

  - 1 new optional lab: "PCA - An Example on Exploratory Data Analysis"

In addition, we've added more optional labs to enhance the existing lectures:

- Course Two, Week Three "Advice for Applying ML: Model Evaluation and Selection" (lab)

- Diagnosing Bias and Variance (lab)

- Course Two, Week Four "Decision Trees" (lab)

Thank you again for being a part of the DeepLearning.AI community. We're excited to release these updates to the specialization, and so glad that you have chosen to learn with us.

Keep learning!

The DeepLearning.AI team