Perform Foundational Data, ML, and AI Tasks in Google Cloud

Introductory 8 Steps 6 hours 18 Credits

Earn a **skill badge** by completing the **Perform Foundational Data, ML, and AI Tasks** quest, where you learn the basic features for the following machine learning and AI technologies: BigQuery, Cloud Speech AI, Cloud Natural Language API, AI Platform, Dataflow, Cloud Dataprep by Trifacta, Dataproc, and Video Intelligence API.

A skill badge is an exclusive digital badge issued by Google Cloud in recognition of your proficiency with Google Cloud products and services and tests your ability to apply your knowledge in an interactive hands-on environment. Complete this skill badge quest, and the final assessment challenge lab, to receive a skill badge that you can share with your network.

Data Machine Learning

Quest Outline

AI Platform: Qwik Start

In this lab you train and deploy a TensorFlow model to AI Platform for serving (prediction). Watch these short videos Harness the Power of Machine Learning with AI Platform and AI Platform: Qwik Start - Qwiklabs Preview.

1 hour	Introductory	1 Credit

Dataprep: Qwik Start

Google Cloud Dataprep is an intelligent data service for visually exploring, cleaning, and preparing data for analysis. Watch the short video Dataprep: Qwik Start - Qwiklabs Preview.

1 hour	Introductory	1 Credit

Dataflow: Qwik Start - Templates

This page shows you how to create a streaming pipeline using a Google-Provided Cloud Dataflow template.

30 minutes	Introductory	1 Credit

Dataflow: Qwik Start - Python

In this lab you will set up your Python development environment, get the Cloud Dataflow SDK for Python, and run an example pipeline using the Google Cloud Platform Console.

30 minutes	Introductory	1 Credit

Dataproc: Qwik Start - Console

This lab shows you how to create a Google Cloud Dataproc cluster, run a simple Apache Spark job in the cluster, then modify the number of workers in the cluster, all from the gcloud Command Line. Watch these short videos, Dataproc: Qwik Start - Qwiklabs Preview and Run Spark and Hadoop Faster with Cloud Dataproc.

30 minutes	Introductory	1 Credit

[Dataproc: Qwik Start - Command Line](#)

This lab shows you how to create a Google Cloud Dataproc cluster, run a simple Apache Spark job in the cluster, then modify the number of workers in the cluster, all from the gcloud Command Line. Watch these short videos, [Dataproc: Qwik Start - Qwiklabs Preview](#) and [Run Spark and Hadoop Faster with Cloud Dataproc](#).

| 30 minutes | Introductory | 1 Credit |

[Cloud Natural Language API: Qwik Start](#)

The Cloud Natural Language API lets you extract entities and perform sentiment and syntactic analysis on text. Watch these short videos [Gain Valuable Insights from Text with Cloud Natural Language](#) and [Cloud Natural Language: Qwik Start - Qwiklabs Preview](#).

| 40 minutes | Introductory | 1 Credit |

[Google Cloud Speech API: Qwik Start](#)

The Google Cloud Speech API integrates speech recognition into dev apps; you can now send audio/receive a text transcription. Watch these short videos [Powerful Speech Recognition Using Google Machine Learning](#) and [Google Cloud Speech: Qwik Start - Qwiklabs Preview](#)

| 15 minutes | Introductory | 1 Credit |

[Video Intelligence: Qwik Start](#)

In this lab use the Google Cloud Video intelligence app to extract metadata from a sample video file. Watch the short video [Google Cloud Video Intelligence - Search every moment of every video in your catalog](#).

| 30 minutes | Introductory | 1 Credit |

[Perform Foundational Data, ML, and AI Tasks in Google Cloud: Challenge Lab](#)

This challenge lab tests your skills and knowledge from the labs in the Baseline Data, ML and AI, quest. You should be familiar with the content of the labs before attempting this lab.

| 1 hour 20 minutes | Expert | 9 Credits |

Quest Complete!

Congrats! You completed this quest and earned a badge. Become a cloud expert and start another.