Data Engineering, Big Data, and Machine Learning on GCP Specialization

coursera.org/specializations/gcp-data-machine-learning

Data Engineering on Google Cloud Platform. Launch your career in Data Engineering. Deliver business value with big data and machine learning.

WHAT YOU WILL LEARN

✓ Identify the purpose and value of the key Big Data and Machine Learning products in Google Cloud.

✓ Use Cloud SQL and Dataproc to migrate existing MySQL and Hadoop/Pig/Spark/Hive workloads to Google Cloud.

✓ Employ BigQuery to carry out interactive data analysis.

✓ Choose between different data processing products on Google Cloud.

SKILLS YOU WILL GAIN

TensorflowBigqueryGoogle Cloud PlatformCloud Computing

About this Specialization

30,325 recent views

87% of Google Cloud certified users feel more confident in their cloud skills. This program provides the skills you need to advance your career and provides training to support your preparation for the industry-recognized Google Cloud Professional Data Engineer certification.

Here's what you have to do

1) Complete the Coursera Data Engineering Professional Certificate

2) Review other recommended resources for the <u>Google Cloud Professional Data Engineer certification</u> exam

3) Review the <u>Professional Data Engineer exam guide</u>

4) Complete <u>Professional Data Engineer </u>sample questions

5) <u>Register</u> for the Google Cloud certification exam (remotely or at a test center)

Applied Learning Project

This professional certificate incorporates hands-on labs using Qwiklabs platform.These hands on components will let you apply the skills you learn. Projects incorporate Google Cloud Platform products used within Qwiklabs. You will gain practical hands-on experience with the concepts explained throughout the modules.

Applied Learning Project

This Specialization incorporates hands-on labs using our Qwiklabs platform.

These hands on components will let you apply the skills you learn in the video lectures. Projects will incorporate topics such as Google BigQuery, which are used and configured within Qwiklabs. You can expect to gain practical hands-on experience with the concepts explained throughout the modules.

How the Specialization Works

Take Courses

A Coursera Specialization is a series of courses that helps you master a skill. To begin, enroll in the Specialization directly, or review its courses and choose the one you'd like to start with. When you subscribe to a course that is part of a Specialization, you're automatically subscribed to the full Specialization. It's okay to complete just one course — you can pause your learning or end your subscription at any time. Visit your learner dashboard to track your course enrollments and your progress.

Hands-on Project

Every Specialization includes a hands-on project. You'll need to successfully finish the project(s) to complete the Specialization and earn your certificate. If the Specialization includes a separate course for the hands-on project, you'll need to finish each of the other courses before you can start it.

Earn a Certificate

When you finish every course and complete the hands-on project, you'll earn a Certificate that you can share with prospective employers and your professional network.

There are 5 Courses in this Specialization

COURSE

1

Google Cloud Big Data and Machine Learning Fundamentals

This course introduces participants to the big data capabilities of Google Cloud. Through a combination of presentations, demos, and hands-on labs, participants get an overview of Google Cloud and a detailed view of the data processing and machine learning capabilities. This course showcases the ease, flexibility, and power of big data solutions on Google Cloud.

COURSE

2

Modernizing Data Lakes and Data Warehouses with GCP

The two key components of any data pipeline are data lakes and warehouses. This course highlights use-cases for each type of storage and dives into the available data lake and warehouse solutions on Google Cloud Platform in technical detail. Also, this course describes the role of a data engineer, the benefits of a successful data pipeline to business operations, and examines why data engineering should be done in a cloud environment. Learners will get hands-on experience with data lakes and warehouses on Google Cloud Platform using QwikLabs.

COURSE

3

Building Batch Data Pipelines on GCP

Data pipelines typically fall under one of the Extra-Load, Extract-Load-Transform or Extract-Transform-Load paradigms. This course describes which paradigm should be used and when for batch data. Furthermore, this course covers several technologies on Google Cloud Platform for data transformation including BigQuery, executing Spark on Cloud Dataproc, pipeline graphs in Cloud Data Fusion and serverless data processing with Cloud Dataflow. Learners will get hands-on experience building data pipeline components on Google Cloud Platform using Qwiklabs.

COURSE

4

Building Resilient Streaming Analytics Systems on GCP

*Note: this is a new course with updated content from what you may have seen in the previous version of this Specialization.

Processing streaming data is becoming increasingly popular as streaming enables businesses to get real-time metrics on business operations. This course covers how to build streaming data pipelines on Google Cloud Platform. Cloud Pub/Sub is described for handling incoming streaming data. The course also covers how to apply aggregations and transformations to streaming data using Cloud Dataflow, and how to store processed records to BigQuery or Cloud Bigtable for analysis. Learners will get hands-on experience building streaming data pipeline components on Google Cloud Platform using QwikLabs.

offered by   Google Cloud

Google Cloud Training

Offered by

offered by   Google Cloud

Google Cloud

We help millions of organizations empower their employees, serve their customers, and build what's next for their businesses with innovative technology created in—and for—the cloud. Our products are engineered for security, reliability, and scalability, running the full stack from infrastructure to applications to devices and hardware. Our teams are dedicated to helping customers apply our technologies to create success.

Start Learning Today

✓ Shareable Specialization and Course Certificates

✓ Self-Paced Learning Option

✓ Course Videos & Readings

✓ Practice Quizzes

✓ Graded Assignments with Peer Feedback

✓ Graded Quizzes with Feedback

✓ Graded Programming Assignments

go to course