

Original page: <https://cloudskillsboost.google/paths/17> (<https://cloudskillsboost.google/paths/17>)

Google Cloud

Google Cloud

(/)

Share on [LinkedIn](#) [Feed](#) [Twitter](#) [Facebook](#)

Apply your skills in Google Cloud console



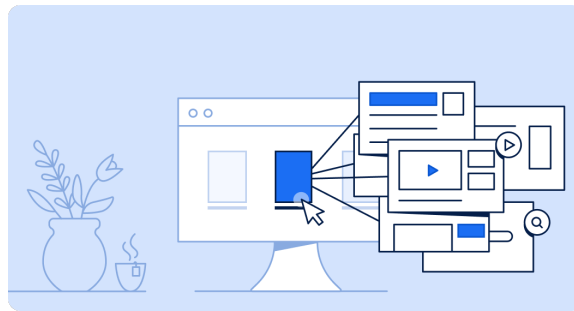
Machine Learning Engineer Learning Path

A Machine Learning Engineer designs, builds, productionizes, optimizes, operates, and maintains ML systems.

school	21 activities	update	Last updated about 2 months	person	Managed by Google Cloud
--------	---------------	--------	-----------------------------	--------	-------------------------

A Machine Learning Engineer designs, builds, productionizes, optimizes, operates, and maintains ML systems. This learning path guides you through a curated collection of on-demand courses, labs, and skill badges that provide you with real-world, hands-on experience using Google Cloud technologies essential to the ML Engineer role. Once you complete the path, check out the Google Cloud Machine Learning Engineer certification to take the next steps in your professional journey.

[Start learning path](#)



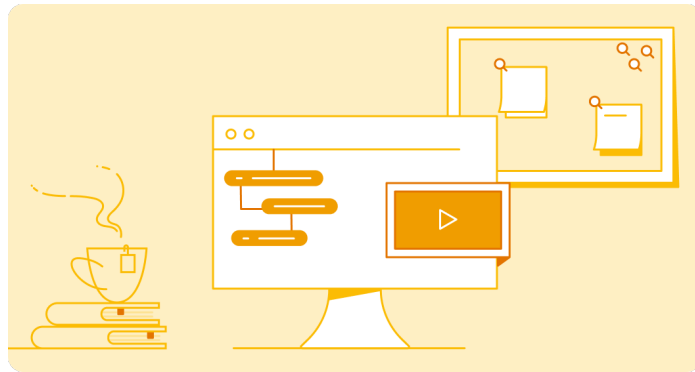
(/paths/17/course_templates/1171)

01 Professional Machine Learning Engineer Study Guide

book Course
access_time 2 hours
show_chart Advanced

This course helps learners create a study plan for the PMLE (Professional Machine Learning Engineer) certification exam. Learners explore the breadth and scope of the domains covered in the exam. Learners assess their exam readiness and create their individual study...

Start course



(/focuses/2794?parent=catalog&path=17)

02 A Tour of Google Cloud Hands-on Labs

book Lab

access_time 45 minutes

show_chart Introductory

In this first hands-on lab you will access the Google Cloud console and use these basic Google Cloud features: Projects, Resources, IAM Users, Roles, Permissions, and APIs.

Start lab



(/paths/17/course_templates/593)

03 Introduction to AI and Machine Learning on Google Cloud

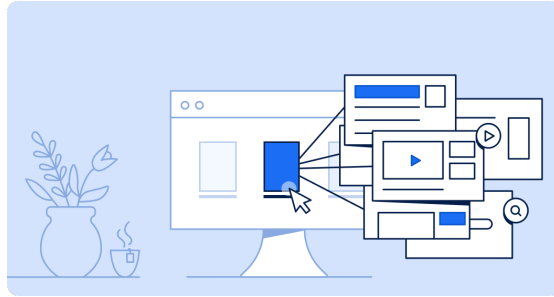
book Course

access_time 8 hours

show_chart Introductory

This course introduces the AI and machine learning (ML) offerings on Google Cloud that build both predictive and generative AI projects. It explores the technologies, products, and tools available throughout the data-to-AI life cycle, encompassing AI foundations, development, and solutions....

Start course



(/paths/17/course_templates/631)

04 Prepare Data for ML APIs on Google Cloud

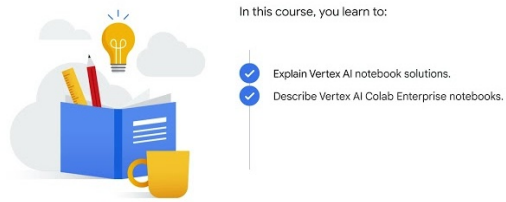
book Course

access_time 5 hours

show_chart Introductory

Complete the introductory Prepare Data for ML APIs on Google Cloud skill badge to demonstrate skills in the following: cleaning data with Dataprep by Trifacta, running data pipelines in Dataflow, creating clusters and running Apache Spark jobs in Dataproc, and...

Start course



(/paths/17/course_templates/923)

05 Working with Notebooks in Vertex AI

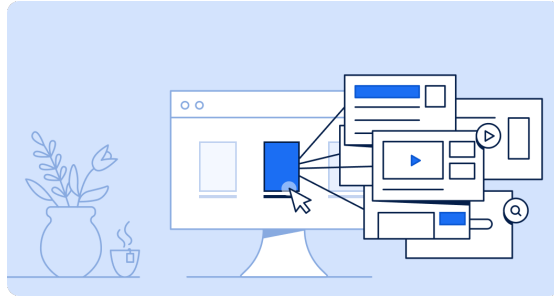
book Course

access_time 5 hours 15
minutes

show_chart Introductory

This course is an introduction to Vertex AI Notebooks, which are Jupyter notebook-based environments that provide a unified platform for the entire machine learning workflow, from data preparation to model deployment and monitoring. The course covers the following topics: (1)...

Start course



(/paths/17/course_templates/626)

06 Create ML Models with BigQuery ML

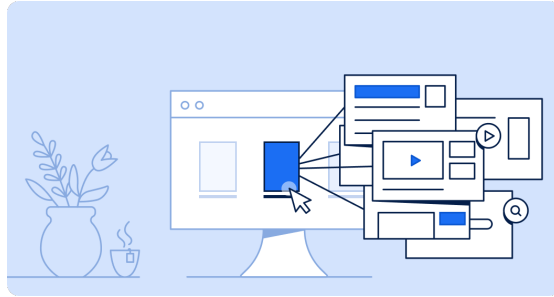
book Course

access_time 1 hour 45
minutes

show_chart Intermediate

Complete the intermediate Create ML Models with BigQuery ML skill badge to demonstrate skills in creating and evaluating machine learning models with BigQuery ML to make data predictions.

Start course



(/paths/17/course_templates/627)

07 Engineer Data for Predictive Modeling with BigQuery ML

book Course

access_time 4 hours 45
minutes

show_chart Intermediate

Complete the intermediate Engineer Data for Predictive Modeling with BigQuery ML skill badge to demonstrate skills in the following: building data transformation pipelines to BigQuery using Dataprep by Trifacta; using Cloud Storage, Dataflow, and BigQuery to build extract, transform, and...

Start course

Google Cloud



Feature Engineering

(/paths/17/course_templates/11)

08 Feature Engineering

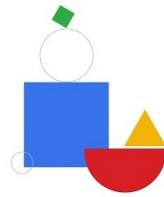
book Course
access_time 24 hours
show_chart Introductory

This course explores the benefits of using Vertex AI Feature Store, how to improve the accuracy of ML models, and how to find which data columns make the most useful features. This course also includes content and labs on feature...

[Start course](#)

Google Cloud

Build, Train, and
Deploy ML Models
with Keras on Google
Cloud



(/paths/17/course_templates/12)

09 Build, Train and Deploy ML Models with Keras on Google Cloud

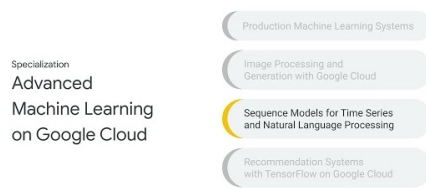
book Course

access_time 15 hours 30
minutes

show_chart Intermediate

This course covers building ML models with TensorFlow and Keras, improving the accuracy of ML models and writing ML models for scaled use.

Start course



[\(/paths/17/course_templates/17\)](/paths/17/course_templates/17)

10 Production Machine Learning Systems

book Course
access_time 16 hours
show_chart Intermediate

This course covers how to implement the various flavors of production ML systems— static, dynamic, and continuous training; static and dynamic inference; and batch and online processing. You delve into TensorFlow abstraction levels, the various options for doing distributed training,...

[Start course](#)

Module 01
Employing Machine
Learning Operations



(/paths/17/course_templates/158)

11 Machine Learning Operations (MLOps): Getting Started

book Course

access_time 4 hours 30
minutes

show_chart Intermediate

This course introduces participants to MLOps tools and best practices for deploying, evaluating, monitoring and operating production ML systems on Google Cloud. MLOps is a discipline focused on the deployment, testing, monitoring, and automation of ML systems in production. Machine...

Start course

Module 02

Vertex AI Feature Store: An
In-depth Look



(/paths/17/course_templates/584)

12 Machine Learning Operations (MLOps) with Vertex AI: Manage Features

book Course

access_time 8 hours

show_chart Intermediate

This course introduces participants to MLOps tools and best practices for deploying, evaluating, monitoring and operating production ML systems on Google Cloud. MLOps is a discipline focused on the deployment, testing, monitoring, and automation of ML systems in production. Learners...

Start course



13 Introduction to Generative AI

book Course

access_time 45 minutes

show_chart Introductory

This is an introductory level microlearning course aimed at explaining what Generative AI is, how it is used, and how it differs from traditional machine learning methods. It also covers Google Tools to help you develop your own Gen AI...

Start course

Google Cloud

Introduction to LLMs



(/paths/17/course_templates/539)

14 Introduction to Large Language Models

book Course

access_time 1 hour

show_chart Introductory

This is an introductory level micro-learning course that explores what large language models (LLM) are, the use cases where they can be utilized, and how you can use prompt tuning to enhance LLM performance. It also covers Google tools to...

Start course

Google Cloud

Machine Learning
Operations (MLOps)
for Generative AI



(/paths/17/course_templates/927)

15 Machine Learning Operations (MLOps) for Generative AI

book Course

access_time 30 minutes

show_chart Intermediate

This course is dedicated to equipping you with the knowledge and tools needed to uncover the unique challenges faced by MLOps teams when deploying and managing Generative AI models, and exploring how Vertex AI empowers AI teams to streamline MLOps...

Start course

Google Cloud

MLOps model evaluation with Vertex AI

Course preview



(/paths/17/course_templates/1080)

16 Machine Learning Operations (MLOps) with Vertex AI: Model Evaluation

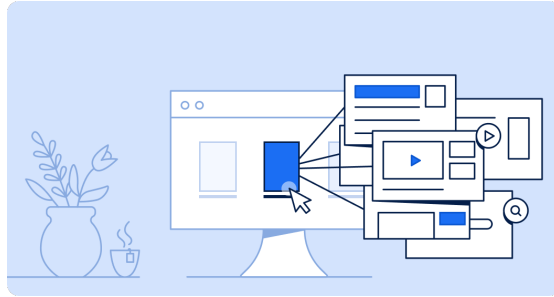
book Course

access_time 2 hours 30
minutes

show_chart Intermediate

This course equips machine learning practitioners with the essential tools, techniques, and best practices for evaluating both generative and predictive AI models. Model evaluation is a critical discipline for ensuring that ML systems deliver reliable, accurate, and high-performing results in...

Start course



(/paths/17/course_templates/684)

17 Build and Deploy Machine Learning Solutions on Vertex AI

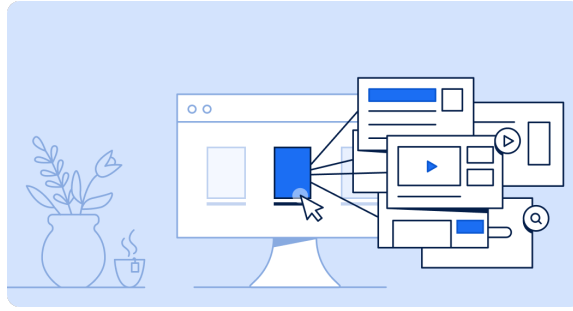
book Course

access_time 7 hours

show_chart Intermediate

Earn the intermediate skill badge by completing the Build and Deploy Machine Learning Solutions on Vertex AI course, where you will learn how to use Google Cloud's Vertex AI platform, AutoML, and custom training services to train, evaluate, tune, explain,...

Start course



(/paths/17/course_templates/1120)

18 Create Generative AI Apps on Google Cloud

book Course

access_time 4 hours

show_chart Intermediate

Generative AI applications can create new user experiences that were nearly impossible before the invention of large language models (LLMs). As an application developer, how can you use generative AI to build engaging, powerful apps on Google Cloud? In this...

[Start course](#)

01 Define what is Responsible AI



(/paths/17/course_templates/985)

19 Responsible AI for Developers: Fairness & Bias

book Course

access_time 4 hours

show_chart Intermediate

This course introduces concepts of responsible AI and AI principles. It covers techniques to practically identify fairness and bias and mitigate bias in AI/ML practices. It explores practical methods and tools to implement Responsible AI best practices using Google Cloud...

Start course

01 Define interpretability & transparency
as it relates to AI



(/paths/17/course_templates/989)

20 Responsible AI for Developers: Interpretability & Transparency

book Course

access_time 3 hours

show_chart Intermediate

This course introduces concepts of AI interpretability and transparency. It discusses the importance of AI transparency for developers and engineers. It explores practical methods and tools to help achieve interpretability and transparency in both data and AI models.

Start course