

Welcome to ineuron.ai



## GCP Machine Learning Certification

### **Description:**

This course will give you the skills you need to enhance your career, as well as instruction to help you prepare for the Google Cloud Professional Machine Learning Engineer certification.

### **Start Date:**

### **Doubt Clear Time:**

### **Course Time:**

### **Features:**

- # Course material
- # Course resources
- # On demand recorded videos
- # Practical exercises
- # Quizzes

# Assignments

# Course completion certificate

### **What we learn:**

# Big Data & ML Fundamentals

# Recommendation System

# BigQuery ML

# BigQuery Keypoints

# BigQuery Features

# PubSub Features

# AI Platform

# DataPrep Tool

# Understanding ML Workflow

# What is vertex AI

# Pricing

# Managing ML Datasets with vertex AI

# Managed dataset handson

# Speech-to-Text using UI Console

# Speech-to-text using gcloud

# Speech-to-text using python library

### **Requirements:**

# System with Internet Connection

# Interest to learn

# Dedication

### **Instructor:**

**Name:**

Khushali Shah

**Description:**

A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

**>Introduction:**

>>Syllabus Overview

>>Things to learn

**>Big Data & ML Fundamentals:**

>>Necessity of Compute Power for ML Workloads

>>Storage, networking & security importance

>>Big Data & Big query tools

**>Recommendation System:**

>>Recommendation System Fundamentals

>>Diff products of GCP for recommendation system

>>Practical:- Query Public Dataset in bigquery

>>Practical:- Loading and querying data

### **>BigQuery ML:**

>>BigQuery ML

>>BigQuery Keypoints

>>BigQuery Features

>>Bigquery GIS Example

>>ML Flow

>>ML Process

>>BigQueryML create Model

>>BigqueryML evaluate model

>>BigqueryML predict model

### **>PubSub/Dataflow/Pipeline:**

>>Overview of pipeline

>>PubSub Features

>>Core concepts

>>Hands-on send/receive messages with gcloud

>>Dataflow

### **>ML:**

- >>Overview
- >>AI Platform
- >>DataPrep Tool
- >>Understanding ML Workflow
- >>What is vertex AI
- >>Pricing
- >>Managing ML Datasets with vertex AI
- >>Managed dataset handson
- >>Build & Train ML model with vertex AI
- >>Training a model using AutoML Vertex AI
- >>AutoML training & deployment
- >>AutoML prediction
- >>Clean up resources
- >>Overview of custom model
- >>Enable API
- >>Create Notebook instance
- >>Create container image
- >>custom ML model training with vertex AI
- >>Deployment
- >>Prediction
- >>Image classification application overview
- >>Collection of yoga pose image dataset
- >>Build image classification model with vertex AI

- >>Deployment & prediction
- >>Vertex AI SDK
- >>Vertex AI SDK code walkthrough
- >>Vertex AI SDK code walkthrough -2
- >>Vertex AI SDK handson-1
- >>Vertex AI SDK handson-2
- >>Vertex AI SDK handson-3
- >>Vertex AI SDK handson-4
- >>Vertex AI SDK handson-5
- >>Vertex AI SDK handson-6
- >>What is Hyperparameter tuning
- >>Hyperparameter tuning
- >>Hyperparameter tuning mechanism
- >>Hyperparameter tuning handson-1
- >>Hyperparameter tuning handson-2
- >>Hyperparameter tuning handson-3
- >>Hyperparameter tuning handson-4

## **>Conversational AI:**

- >>Overview
- >>Speech-to-Text using UI Console
- >>Speech-to-text using gcloud
- >>Speech-to-text using python library
- >>Different types of Speech recognition

- >>Asynchronous speech recognition demo
- >>Assignment Speech-text for streaming data
- >>Cloud Text-to-Speech overview
- >>TTS using python handson
- >>TTS list down voices available
- >>TTS basics
- >>TTS SSML to audio handson
- >>Assignment Translating text from a photo
- >>Cloud Natural Language AI Overview
- >>Analyze sentiment
- >>Sentiment\_analysis\_in\_different\_language
- >>Analyze entities in a string
- >>Classify text
- >>Analyzing syntax
- >>Analyzing entity sentiment
- >>Video Intelligence
- >>Designing AI systems:**

- >>Problem overview
- >>Change in Data
- >>System Failure
- >>Concept of drift
- >>Risks in ML system
- >>Rules of ML

>>Best Practices of data

>>Hybrid ML Model

>>Kubeflow

## **>MLOps Fundamentals:**

>>Basics

>>Implementation:- Creating GKE Cluster with kubeflow

>>Implementation:- defining custom component using KFP SDK

>>Implementation:- Running/deploying pipeline

>>CI/Cd pipeline

>>Cloud Build trigger

## **>Explainable AI:**

>>Overview of explainable AI

>>Vertex Explainable AI

## **>GCP ML Certification sample questions:**

>>QnA part-1

>>QnA part-2

>>QnA part-3