Hello J Balaji,

To help you ramp on Google Cloud, we have provisioned the following learning resources for you:

**On Demand Learning**

* + You have been provisioned access to Google Cloud Skills Boost for Partners (formerly Google Courses) to complete the Professional Machine Learning Engineer Certification track.
  + To begin these classes, log on to Google Cloud Skills Boost for Partners at   
    [https://partner.cloudskillsboost.google](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpartner.cloudskillsboost.google%2F&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152622430%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=IHxO5Qn%2Fk%2BIyxExmuvCXo%2BnzEBpWhw5mZxyV3%2BaSce0%3D&reserved=0) with your email [j.balaji@cognizant.com](mailto:j.balaji@cognizant.com), and click each link to access your training. If you already have a qwiklabs account with your email [j.balaji@cognizant.com](mailto:j.balaji@cognizant.com), log in to [https://partner.cloudskillsboost.google](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpartner.cloudskillsboost.google%2F&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152622430%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=IHxO5Qn%2Fk%2BIyxExmuvCXo%2BnzEBpWhw5mZxyV3%2BaSce0%3D&reserved=0) with your existing password, otherwise create a new account.
  + [Video walkthrough](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fyoutu.be%2FP6pHRiWVSBI&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152622430%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=YZGf1O54EmWR%2Br4YM1EGmlUilZwOfeHUIVqSPl6EnDc%3D&reserved=0) of Google Cloud Skills Boost for Partners

**Learning Path: Professional Machine Learning Engineer Certification**  
 [1 Google Cloud Platform Big Data and Machine Learning Fundamentals](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F3%3Fcatalog_rank%3D%257B%2522rank%2522%253A2%252C%2522num_filters%2522%253A0%252C%2522has_search%2522%253Atrue%257D%26search_id%3D12903312&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152622430%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=LKzGXY182SGFiIW6QuESQI3gCwu1RxQlXnKZ%2F5QO5M4%3D&reserved=0) (On-demand Training)  
   [1.1 Google Cloud Platform Big Data and Machine Learning Fundamentals](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F3%3Fcatalog_rank%3D%257B%2522rank%2522%253A1%252C%2522num_filters%2522%253A0%252C%2522has_search%2522%253Atrue%257D%26search_id%3D5773044&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152622430%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=COWq%2Fu3O4Df%2BXtJg2sE1ld1H7FXomBHIRKxZ2nOJB2M%3D&reserved=0)  
  
 2 Machine Learning on Google Cloud (On-demand Training)  
   [2.1 How Google does Machine Learning](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F10&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=q9PZmyRBW7bJObB8rAC9fzHGDwE8yBhxZ66Ze6PesSk%3D&reserved=0)  
   [2.2 Launching into Machine Learning](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F8&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=SeDu9PpFBXlNuReyPe67qd1mQ3gdpCyPT94jfUB91uM%3D&reserved=0)  
   [2.3 Introduction to TensorFlow](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F12&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=b4slGgAPj44IBSVdD%2BHd7M%2BMX%2Bcnd%2F6WXulpHVVtsgk%3D&reserved=0)  
   [2.4 Feature Engineering](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F11&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=41F4YhvWX4JRzY%2BOZe27nka28byx9ffFtPtv0EGH99w%3D&reserved=0)  
   [2.5 Art and Science of Machine Learning](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F9&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=mLStz7mp9U2q6Mu7KqXkBujjCBvoKBEPVFcan1LEWwA%3D&reserved=0)  
  
 3 Advanced Machine Learning with TensorFlow on Google Cloud (On-demand Training)  
   [3.1 End-to-End Machine Learning with TensorFlow on GCP](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F15&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=3PhKCsGwt0%2FxsE%2FHgBoheGfaOjhs4MoG72xmdVIjRgA%3D&reserved=0)  
   [3.2 Production Machine Learning Systems](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F17&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=WffMFJI2mQc66HRe9kxon12nNl9FmbpZdsyUqdnWuFA%3D&reserved=0)  
   [3.3 Image Understanding with TensorFlow on GCP](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F18&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=j2Xv6jXswmRYG4I0H%2FDujhOqqOpnVsQUP89TNO4yF1c%3D&reserved=0)  
   [3.4 Sequence Models for Time Series and Natural Language Processing](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F40&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=KkZKt%2FjuODvVtke4spb7vtW3AOu9Ml8rckk6bO7qwXc%3D&reserved=0)  
   [3.5 Recommendation Systems with TensorFlow on GCP](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F39&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=z0a6nBy3GuKdnrztov8VjcXDbhZPaP3MOrbPXqupY6s%3D&reserved=0)  
  
 [4 MLOps (Machine Learning Operations) Fundamentals](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_sessions%2F374620%2Fdocuments%2F81962&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=iWHLDALH%2FnPnFMligF23LOCcytWUAwh%2F0zCUKNkP2y4%3D&reserved=0) (On-demand Training)  
   [4.1 MLOps (Machine Learning Operations) Fundamentals](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F158&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=lbJmcXsE6%2F%2BT8SA3fOocMJSPiGdsPAcgHUo5KFZ%2FOWk%3D&reserved=0)  
  
 [5 ML Pipelines on Google Cloud](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_sessions%2F374620%2Fdocuments%2F81963&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Va4gXaV7vBCtI8zdufJwutgQfeYtC5px%2BM%2FXOkbgf%2F0%3D&reserved=0) (On-demand Training)  
   [5.1 ML Pipelines on Google Cloud](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fcourse_templates%2F191&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=l0POleJYl7zIwoG4ZGzhcsXBj2Z5xP%2BbjOapHaAi4Os%3D&reserved=0)  
  
 [6 Perform Foundational Data, ML, and AI Tasks in Google Cloud](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fquests%2F117&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=PmLbL5e8BI8XfIRwFYJ07w5MLxg18CN3LOompLiyx90%3D&reserved=0) (Qwiklabs Quest)  
   [6.1 AI Platform: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13310%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=iJds0hfjDN4FvZduvoRmezncVRR%2B4ouXPxPI078aeUk%3D&reserved=0)  
   [6.2 Dataprep: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13314%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=eeyfSlXJtiIT%2BPBaBWYhtYBdWcfKbL0xKM8howdT%2B6M%3D&reserved=0)  
   [6.3 Dataflow: Qwik Start - Templates](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13313%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=4WwSHgg2zaqXasRrTDs3fq%2BU%2B0GPGovNu8f7B0U0hcU%3D&reserved=0)  
   [6.3 Dataflow: Qwik Start - Python](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13312%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=qWJf1qWDat7H0NAtHwRtfSEvqlPCtlJqmpiDFmtu4RA%3D&reserved=0)  
   [6.4 Dataproc: Qwik Start - Console](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13316%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=2KV%2Bn6f50CgqHgJkXXtTeGlOxISIVwxalpR5QDrqO%2Fo%3D&reserved=0)  
   [6.4 Dataproc: Qwik Start - Command Line](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13315%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=3tDs9st20uHE4aHSgicbXiVvGs3bXnszoF1Bc1QnclA%3D&reserved=0)  
   [6.6 Cloud Natural Language API: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13311%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=dfHvayOhFTOircZO8h0SOhCRpo0T1Nj%2Br8U7ABfNZLI%3D&reserved=0)  
   [6.7 Google Cloud Speech API: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13317%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=qg3q4GNKTDLdJ%2BZ4QU5gEsOO9IbJLEX2gB9R%2FiPYq1g%3D&reserved=0)  
   [6.8 Video Intelligence: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13320%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=KzkZ6UYuvPRVAYofMDfrzN5%2BMKVW%2Fncd0nxEja4qtS0%3D&reserved=0)  
   [6.9 Perform Foundational Data, ML, and AI Tasks in Google Cloud: Challenge Lab](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13318%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=%2BvJYrxfbxU1W5YiO0CSgaQwxoW1ewRwS4%2BM9hBvKr1w%3D&reserved=0)  
  
 [7 Explore Machine Learning Models with Explainable AI](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fquests%2F126&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152778655%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=CTlLfMYIEsPmpL1dhZ9KMvwv1WMas54sC97ALLPHh9I%3D&reserved=0) (Qwiklabs Quest)  
   [7.1 AI Platform: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F13310%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=AOeBpV%2FKRsvGpwbqeo9XYDQQgzFlBjPYM2QvNjwOY1o%3D&reserved=0)  
   [7.2 Using the What-If Tool with Image Recognition Models](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgoogle.qwiklabs.com%2Ffocuses%2F10904%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Md6aZkU8cFWS8Pda%2FlOQ7AYJKLPnTNYT3QN7xWrBZr4%3D&reserved=0)  
   [7.3 Identifying Bias in Mortgage Data using Cloud AI Platform and the What-if Tool](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgoogle.qwiklabs.com%2Ffocuses%2F10903%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=451VdL%2BrbCewhhXZG5GG0h9TQt3ScvnXtUgOCJPgS%2B0%3D&reserved=0)  
   [7.4 Compare Cloud AI Platform Models using the What-If Tool to Identify Potential Bias](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgoogle.qwiklabs.com%2Ffocuses%2F10605%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=71yNo03zagqlNiWfsyEewTfHSaR8%2B7DiDtRAlWteVBs%3D&reserved=0)  
   [7.5 Explore Machine Learning Models with Explainable AI: Challenge Lab](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgoogle.qwiklabs.com%2Ffocuses%2F12011%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=0bEyaWHJ1Iyp9ppIWpMiHnSvoc1UGSjfYY4Ap13ferw%3D&reserved=0)  
  
 [8 Build and Deploy Machine Learning Solutions on Vertex AI](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Fquests%2F183&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=wirtp%2FyH%2F98KN08BoTGbGi5WG83EvVoM5KTHJfzgHxw%3D&reserved=0) (Qwiklabs Quest)  
   [8.1 Vertex AI: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F21100%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=15mkjW0vr7xP1RcWzUbPT2wdgxGwJ%2BJTWblGzkBVYfM%3D&reserved=0)  
   [8.2 Identify Damaged Car Parts with Vertex AutoML Vision](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F22029%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=1jAOdvBmH2CrBBKgPa0YVZ8lHl37modSjBjk8gUQpE0%3D&reserved=0)  
   [8.3 Deploy a BigQuery ML Customer Churn Classifier to Vertex AI for Online Predictions](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F21101%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=VixA6Y2lVTk4rOqQU7bkqA9SjzvoEkRxH28xigdd2PA%3D&reserved=0)  
   [8.4 Vertex Pipelines: Qwik Start](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F22030%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=G%2BfQmARo8goFP1tO%2FSPF3fX85h7F%2BcxJl%2BEtoZNMcYM%3D&reserved=0)  
   [8.5 Building and Deploying Machine Learning Solutions with Vertex AI: Challenge Lab](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgooglecourses.qwiklabs.com%2Ffocuses%2F22028%3Fparent%3Dcatalog&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=GRUGcspdIXyNt7JemTmK%2FPoTcYrF5NvYY29qKb3vDek%3D&reserved=0)  
  
 [9 Professional Machine Learning Engineer Exam Guide](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcloud.google.com%2Fcertification%2Fguides%2Fmachine-learning-engineer&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=AU%2FzIqx7QF3cdhb9f4gD7ljfSAc9tE8CHHigBcuFeqU%3D&reserved=0) (Guides)  
   [9.1 Professional Machine Learning Engineer Exam Guide](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcloud.google.com%2Fcertification%2Fguides%2Fmachine-learning-engineer&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=AU%2FzIqx7QF3cdhb9f4gD7ljfSAc9tE8CHHigBcuFeqU%3D&reserved=0)  
  
 10 Professional Machine Learning Engineer Exam (Certification)  
   [10.1 Professional Machine Learning Engineer](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwebassessor.com%2Fgooglecloud&data=04%7C01%7Cj.balaji%40cognizant.com%7C2ba81793c2c9409dc6c008d9f79001d0%7Cde08c40719b9427d9fe8edf254300ca7%7C0%7C0%7C637813020152934872%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=ObSiHxiUs3eLtker41LidOk0IaKfFZnmQ0WEDrDWh5k%3D&reserved=0)

The Google Cloud Partner Enablement Team