# 在 Google Cloud 上做資料分析 使用 R

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## Google Cloud Data/AI 產品家族

#### Cloud AI 解決方案







Contact Center Al

#### ML專家 & 合作夥伴





ASL

**Professional Services** Organization

對話

#### Cloud AI 基礎服務





視覺



Cloud Video Intelligence API



Cloud Natural Language API



Cloud Translation API



Cloud

Cloud Speech-to-Text APIText-to-Speech API

Dialogflow Enterprise

Custom and Automated



Vision API



AutoML Natural Language



AutoMI Speech-to-Text

#### Cloud AI 平台



Kubeflow **Pipelines** 



Cloud ML Engine



基礎建設



Cloud Dataproc



服務

Google BigQuery



BigQuery

ML 函式庫



Cloud Dataprep



Studio

市集

工具



kaggle



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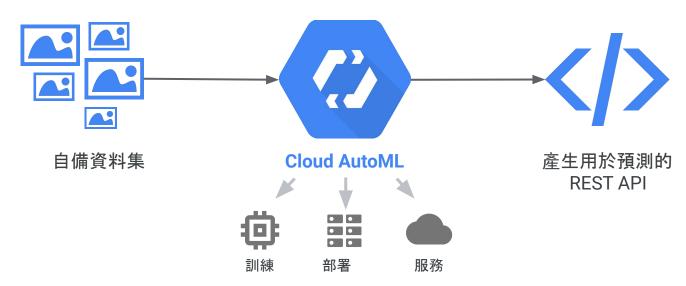


Cloud GPU



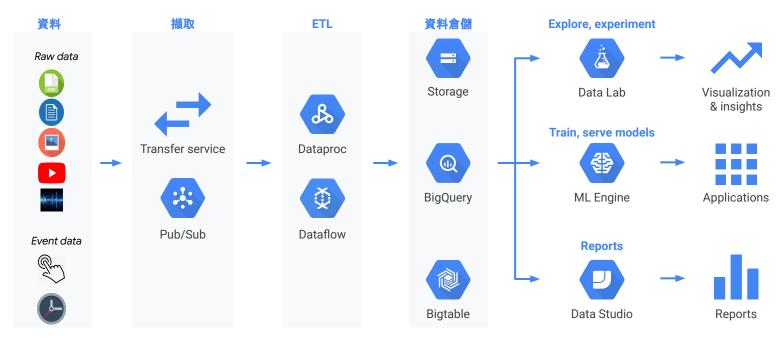
#### **Cloud AutoML**

用你自己的資料集訓練 ML 模型





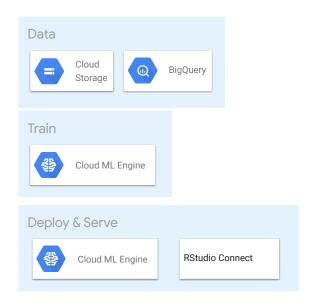
### 使用 GCP 做資料處理的各個步驟





### **Using R on Google Cloud**

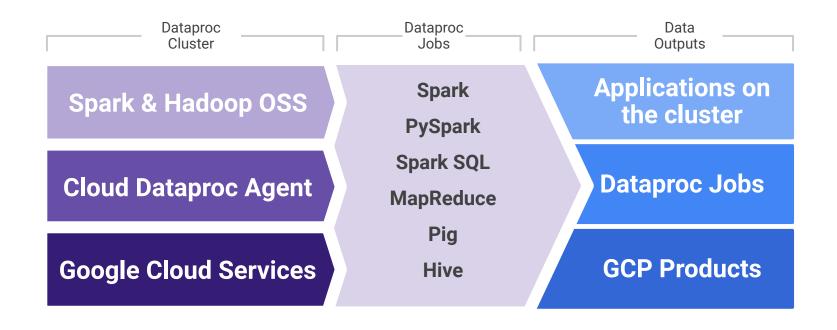




- RStudio Server Pro from Cloud Launcher
- Submitting SparkR jobs from Cloud Dataproc
- Connecting R to the rest of GCP
  - Cloud ML
  - BigQuery



# Google Cloud Dataproc - under the hood



#### Google BigQuery is actually two services in one



# **BigQuery Managed Storage**

Fully-managed and scalable data storage that is based on the same technology that stores Google's product data (ads, gmail etc.)



#### BigQuery Analysis

Fast massively parallel **SQL Engine** based on

Google's own internal

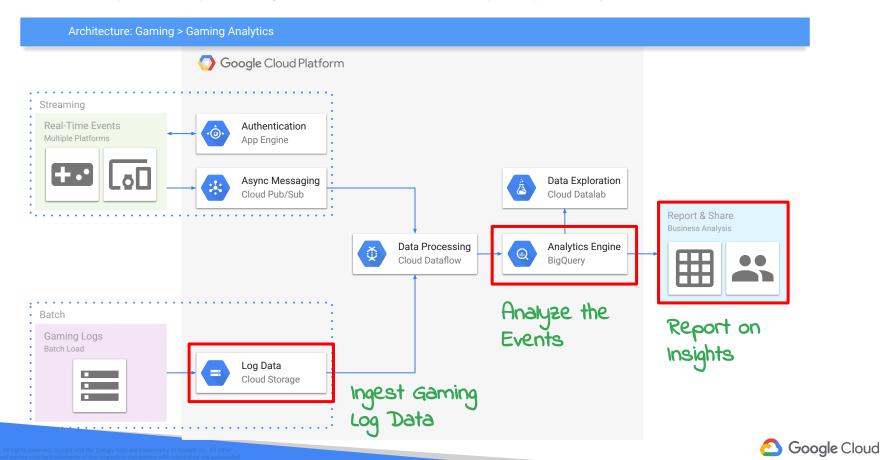
Dremel query engine

technology

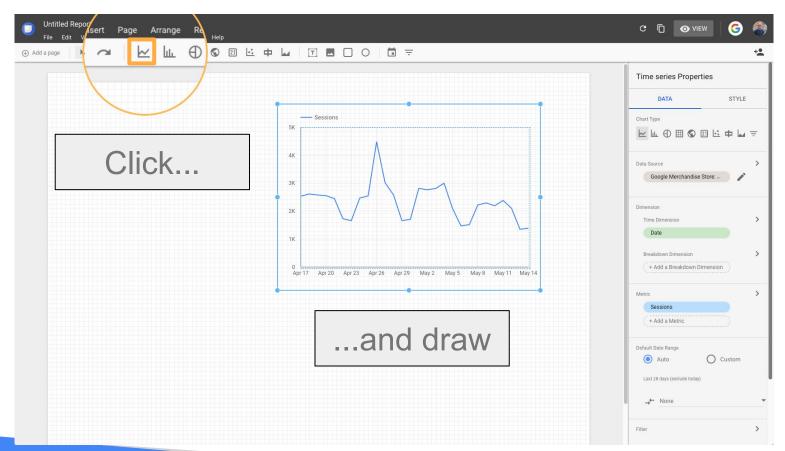




#### End-to-end gaming analytics example highlighting GCP tools



#### **Datalab: Data Visualization**





# Hands-on Qwiklabs