

# DATA ENGINEERING: REAL-TIME PREDICTIVE MODEL TO ESTIMATE VIABLE CELL DENSITY IN THE COMMERCIAL PRODUCTION OF A PHARMACEUTICAL DRUG

## TECH STACKS:



Keras



Tensor Flow



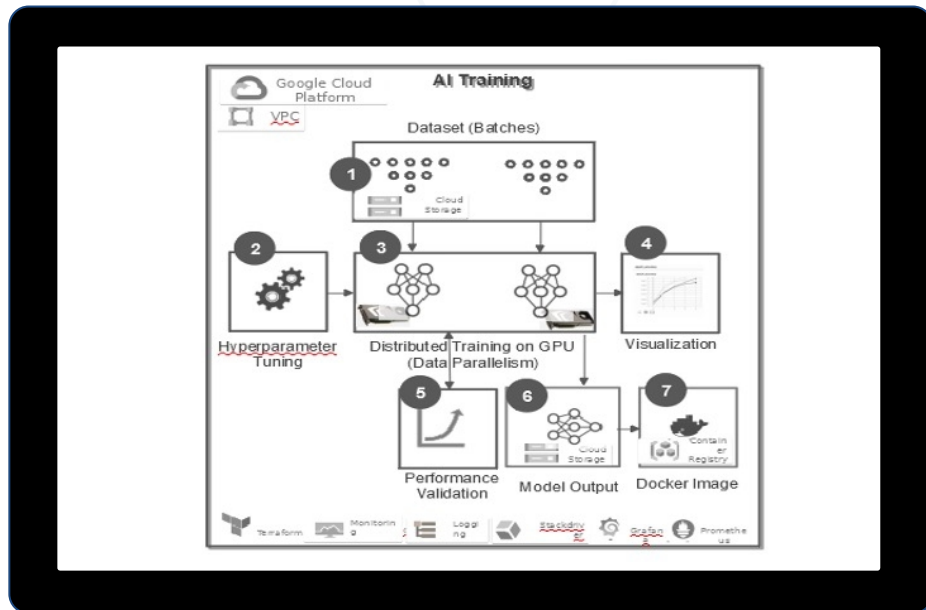
GCP



Python



Matplotloib



## CLIENT:

A biotechnology corporation, the client is dedicated to pursuing ground-breaking science to discover and develop medicines for people with serious and life-threatening diseases.

## CHALLENGE:

Estimating cell viability to obtain sufficient cell mass for fermenter inoculation

## SOLUTION:

We designed an on-line estimation of viable cell density in the commercial production of a pharmaceutical drug. We also developed deep learning models to predict PCT viability. It operates on prediction of single and multiple values of drug composition based on historical data. These models can be integrated with Google cloud storage, Google Cloud BigQuery and local drives to fetch the data from the sources.