

Bionik Laboratories Machine Learning and Data Pipelines

Bitstrapped constructed an ML Ops foundation on GCP with the ability to continuously aggregate and prepare training data, automate training, and deploy new ML model versions.

The challenge

Bitstrapped was brought in to migrate Bionik's existing technologies, workloads, and processes relating to the InMotion device on GCP in order to take advantage of Google's Machine Learning capabilities and to remove the barrier to data insights on current infrastructure. The task was to assist therapists design specialized treatment plans to monitor patient trends and to improve patient outcomes.

The solution

The solution centers around patient data workloads which are elevated by superior speed, scale, automation, and AI capabilities, a part of Google Cloud's data and analytics foundations. By leveraging a readily available dataset, we were able to get up and running with data ingestion, ETL processes, and trained ML pipelines.

The results

The solution gave Bionik the ability to predict how effective therapy will be for a given patient. Bionik no longer needed to run pilot launches with customers to demonstrate the effectiveness of their technology as the data was able to share a clear picture into the benefits of the InMotion® medical device.

1. Reduced the experimentation cost by 30%
2. Improved the process by eliminating redundancies and allowing for flexibility when training Machine Learning models
3. Automated data warehousing, cleaning, preparation, processing, feature engineering, training & deployment using services Kubeflow (on GKE), Dataflow & BigQuery

BIONIK

InMotion® Robots

About BIONIK

Bionik is an innovative healthcare company specializing in neurological recovery therapy, leveraging motion technology to help licensed therapists build customized treatment plans for patients who have suffered strokes by using the built-in technology of the InMotion™ Robotic arm.

Industry: Healthcare & Life Sciences

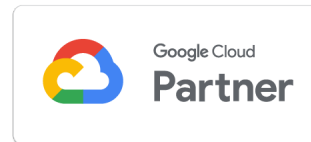
Primary project location: Canada



BITSTRAPPED

About Bitstrapped Inc

Bitstrapped is a software services partner specialized in data engineering, ML and AI for the cloud.



Products

Google Cloud Platform