STREAM.ML CASE STUDY





THE BACKGROUND

Stream.ML enables anyone to leverage machine learning by making it easy to build a machine learning models in minutes.

By taking pictures and uploading images, customers provide the 'raw materials' needed that will be used to build a custom machine learning model.

With enough images, the models can be trained to recognize patterns - and custom machine learning models are born. Whether deploying a model for internal use in an application or sharing through the online marketplace, the experience is simple and quick.

Before accessing ISAIC's resources, Stream.ML had its own computing infrastructure to train those models for clients, but it was slow and expensive to buy and run.

Machine learning can require large amounts of computational time and ISAIC's resources meant that Stream.ML could test their hypotheses faster without burning through their cash expanding their own hardware.

THE PROBLEM

Stream.ML experienced a void in high-performance computational resources, as they were hard to find and too expensive. Stream.ML performs automated machine learning (autoML) which automates the process of applying machine learning to real-world problems.

In autoML processes, countless experiments consisting of machine learning tasks have to be performed in order to determine what is capable of being automated.

Because of this, Stream.ML requires enough computational power to iterate tasks through different autoML situations to ensure that they work properly.

In order to do that, Stream.ML consumes large amounts of CPU and GPU resources depending on the problem set. They needed a large amount of compute to maximize their efficiency without burning through their cash testing out what might work.







HOW ISAIC HELPED

ISAIC has made it easier for Stream.ML to run their experiments, train multiple autoML models, and test their performance in a timely manner.

ISAIC's resources reduced idle time of Stream.ML's data scientists and led to quicker results that enabled faster decision-making.

"If data scientists don't have adequate machinery to run their tests, they're basically sitting idle for a large portion of time. We are able to highly utilize our data scientists because ISAIC's compute power was there for them to run their tests. ISAIC frees up their time so they don't need to make assumptions because they can't run the tests that they need to in a timely fashion. **Compute resources** make it possible to test enough



computations."



THE IMPACT

ISAIC has accelerated Stream.ML's ability to quickly develop new models.

ISAIC has been valuable in advancing Stream.ML's ability to perform research and development and ensures that they are able to make better use of their data scientists' time.

ISAIC's resources were easy-to-use and readily available when Stream.ML needed them, making it easy to reach its business's objectives.

Stream.ML also runs a marketplace where clients can upload the models Stream.ML developed for them for others to buy and use.

In using ISAIC's infrastructure to build models more quickly, Stream.ML has also opened up more avenues of income more quickly for themselves and their clients.

According to Stream.ML:

"Using ISAIC would be a positive experience for startups and scaleups involved in AI/ML because they typically do not have access to proper compute resources. Because of this, they're unable to test their ML models to see if it will advance their business without incurring a large upfront cost or commitment to either a cloud, vendor or a purchase of hardware."

