

SUCCESS STORY

# Edge AI - GUI based No-Code AI Platform

For Novice Users





## INTRODUCTION

A Tier-1 global semiconductor company that manufactures analog and embedded processing chips approached Ignitarium for an end-to-end AI / Deep Learning model development platform to help novice users train, compile and deploy such models on its embedded devices.

Service in Focus

# Platform Development



### Industry

Semiconductors



### Scope

Define & develop an edge-to-cloud platform which enables user/s to capture, annotate, train, compile & deploy AI models to various edge devices

## THE CHALLENGE

While designing the solution, Ignitarium was required to address the following challenges:

- The platform was required to be deployed as a fully integrated **no-code solution**.
- In addition to deployment in the cloud, support for stand-alone deployment to customer labs.
- Simple interface and progress tracking to be provided for novice users to train and compile models for deployment into edge AI applications.
- Multi-tenant capability had to be built in for the platform with a constraint on resources availability for each user.
- Using the training and compilation software with pretrained models to train user's own dataset by transfer learning and compile them for the customer's various supported devices
- Providing accessibility to the edge device from a web browser with very low latency (2-3 seconds for live video streams).
- Integration and customization of the annotation tool to support the different types of labeling tasks.



## IGNITARIUM'S SOLUTION

- A fully integrated no-code multi-tenant platform for training & compiling models and deploying the same to customer-specific edge devices. It supports **Bring-Your-Own-Data (BYOD)**, enabling the re-training of models for the Image Classification & Object Detection tasks using customer proprietary models with custom data.
- Intuitive GUI to guide a novice user through the data capture, annotate, train, compile and model deployment steps on the supported embedded device connected via ethernet.
- Easy-to-read dashboard with the progress of the users' actions for training & compilation along with resource utilization.
- Support for accessibility to device cameras (through the web) for live data capture and inference.
- A unified development experience across customer's multiple AI edge devices.
- Scalability achieved through Kubernetes deployment.
- Demonstration of the feasibility of the solution to the customer through rapid prototyping right at the project inception stage.

## BUSINESS IMPACT



**Reduced time to 'Go live'** of the platform owing to collaborative delivery by our various teams across embedded, AI, UI / UX design and web development expertise.



**Enabled wider adoption** of the customer's edge devices in the market by addressing the needs of novice AI developers (users) through the platform.

**Looking to transform your product with AI / ML?**

Drop us a line to get in touch with our experts.