Intel® AI Edge Application Ready Verification

Guide

August 2025

Revision 1.0

Contents

Revision History

Revision	Description	Date
1.0	Initial release.	August 2025

Introduction

This document will guide you through the process of onboarding your AI Edge Application and verifying its performance on an Intel qualified AI edge system. You will be required to complete the outlined steps, answer several questions, submit your responses, and attach an automated report to an email for evaluation.

Overview

Accelerate your impact—verify your application with an Intel AI Edge Systems to ensure peak performance on trusted, pre-qualified hardware. Deliver scalable, real-world AI solutions and stand out in a competitive market. Begin your integration today.

By joining Intel's AI Edge ecosystem, your application gains access to premium technical support, and high-impact co-marketing opportunities—empowering you to expand your reach, enhance visibility, and drive adoption with confidence.

Learn more at our Intel® Industry Solution Builders Challenge (ISBC) for AI Edge Applications website.

How Does it Work?

This five-step verification process enables ISVs to verify their applications on qualified Intel AI Edge Systems. It ensures your solution is optimized for deployment on Intel hardware, backed by proven reliability that earns trust across the Intel ecosystem, enhancing credibility and accelerating market readiness.

	**Step 1: Acquire an Intel® AI Edge System & Software**
	**Step 2: Download & Install Edge Sizing Tool from GitHub**
	**Step 3: Configure Your Workload**
	**Step 4: Submit Your Application Onboarding Request**
	**Step 5: Application Review, Promotion and Benefits Activation**

Step 1: Acquire an Intel® AI Edge System & Software

1a. Access a System

You can begin your application verification with one of the following options, either by procurement with the help of our recommended systems catalogue, our development kits, or by requesting our testbed access which hosts a list of verified Edge AI systems.

- Procure a system from our Recommended Systems Catalogue.
- Procure one of the Intel Foundational Dev Kits.
- Request access to the Edge AI Testbed which hosts a number of verified Edge AI systems.

1b. System Software Requirements

For a smooth onboarding experience, you are required to install the following list of software ingredients. Refer to the steps shown here.

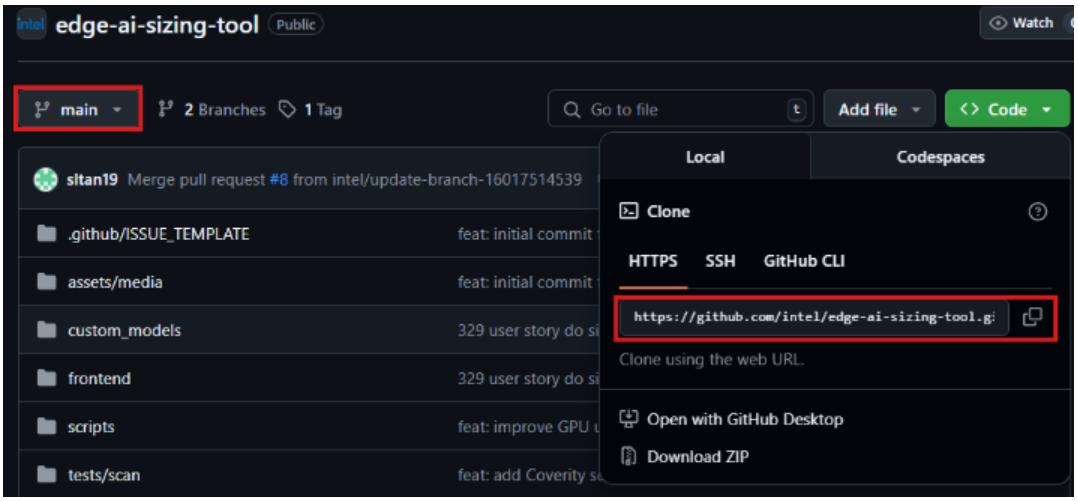
Category	Component	Version / Detail	Description
Operating System	Ubuntu*	22.04 or 24.04 LTS Desktop Linux	Validated Target OS
	Windows*	Windows 11	
AI Toolkit	OpenVINO Toolkit	Latest	AI inference toolkit optimized for Intel CPUs, GPUs, and NPUs.
Essential Runtime Component	Python	3.10+	A core runtime used for running OpenVINO pipelines.
Essential Runtime Component (Web)	Node.js	22+	Required for Edge AI Sizing Tool
Intel GPU Support	Intel GPU Driver	v25.09.32961.5	Required for OpenVINO GPU acceleration[1].
Intel NPU Support	Intel NPU Driver	v1.13.0	Required for OpenVINO NPU acceleration[1].
Essential Runtime Component	intel-gpu-tools	1.28-1ubuntu2	Required for Intel GPU performance & fine-tuning AI pipeline execution.

[1] *Systems that do not possess a discrete GPU or NPU will not require these drivers.*

Step 2: Download & Install Edge Sizing Tool

2a. Download the Edge AI Sizing Tool *(two options are available)*

Option 1: Cloning with Git tool (recommended)

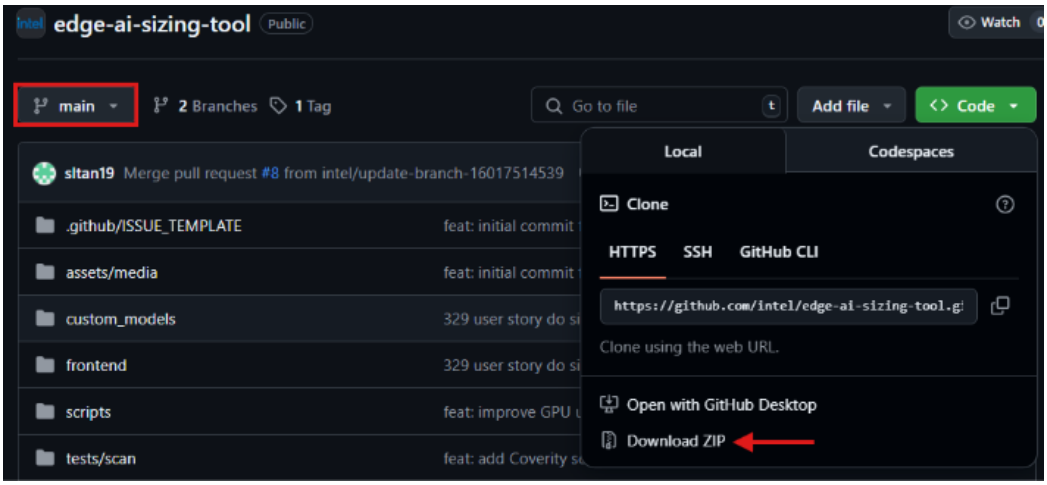


- Set the branch to "main" and click the <> Code button to see the download options.
- Start a command line console and copy the command below to begin download.

```
$git clone https://github.com/intel/edge-ai-sizing-tool.git
```

Note: Some network environments may require a network proxy setup.

Option 2: Direct Download



- Download the sizing tool at: https://github.com/intel/edge-ai-sizing-tool
- Set the branch to "main" and click the <> Code button to see the download options.
- Click "Download ZIP" to begin package download.

2b. Install Software and Test Run the Intel AI Edge Sizing Tool

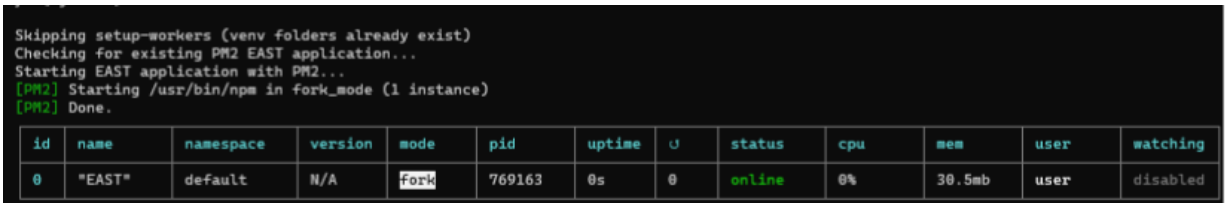
- ***(This step is only required if you performed a direct download)***
  Install unzip package and decompress edge-ai-sizing-tool-main.zip with the commands below.

```
$sudo apt-get install unzip -y
$sudo unzip edge-ai-sizing-tool-main.zip
$mv edge-ai-sizing-tool-main edge-ai-sizing-tool
```

- Enter edge-ai-sizing-tool directory and install required dependencies and start application with commands below.

```
$cd edge-ai-sizing-tool
$ ./install.sh
$./start.sh
```

Note: When you execute start.sh, the setup process will automatically generate a random secret key for the PAYLOAD_SECRET variable in the .env file. By running this script, you acknowledge and accept the terms of use of this automatically generated secret.



- Once the start script has been initiated, use a web browser application and go to: http://localhost:8080.

  Note: For correct operation, this application requires port 8080 and ports between 5000 to 6000 to be available for frontend and worker services respectively.

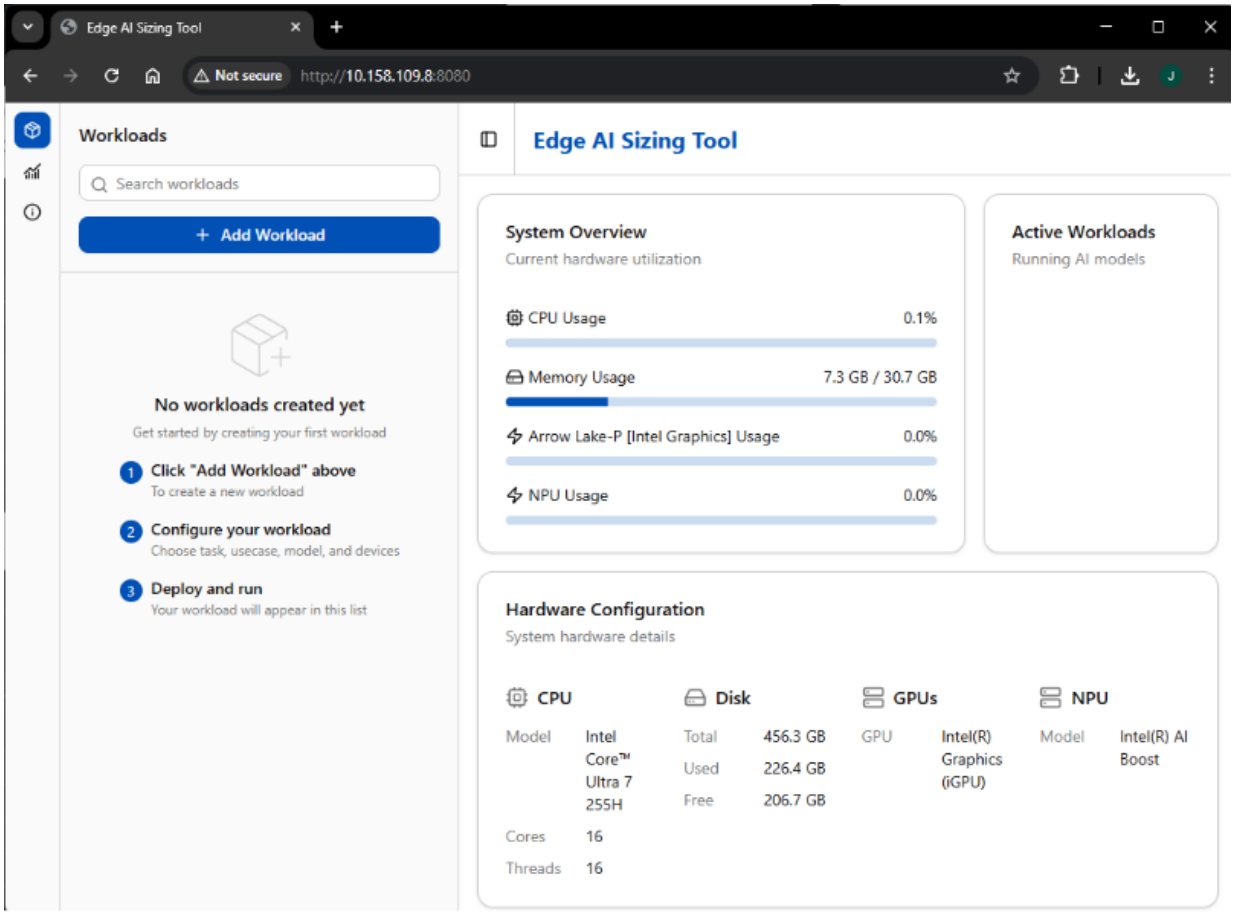


Figure 1: User interface of Edge AI Sizing Tool landing page.

Step 3: Configure Your Workload

Next, let's "build" a workload that closely mimics your application use-case with the options below.

3a. Video Processing

Perform the steps in this section if your application utilizes video processing and analytics in a single pipeline as used for object detection, face recognition, or motion tracking for industries like retail, safety & security, education, or healthcare.

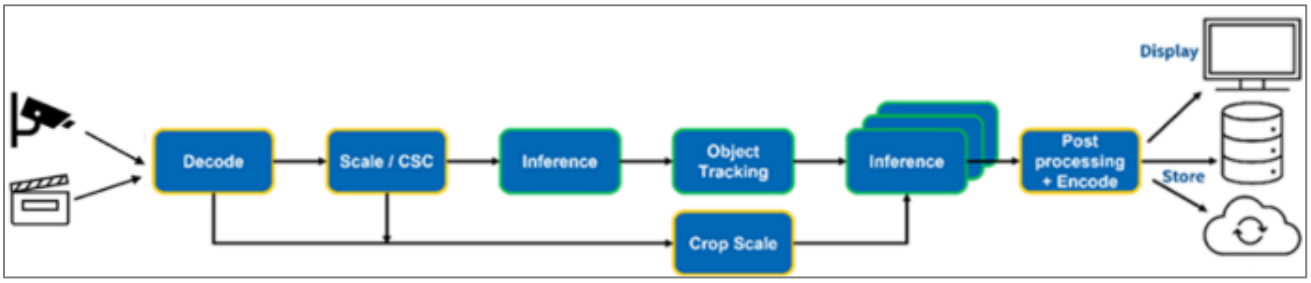
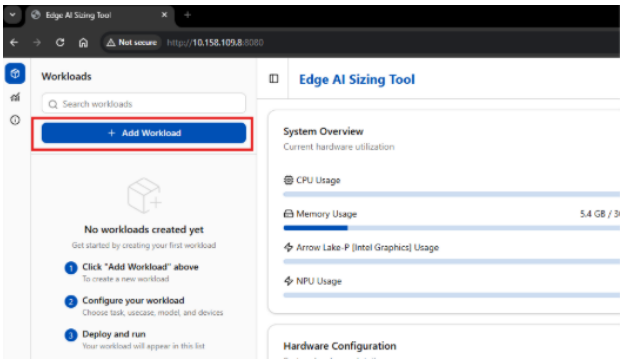
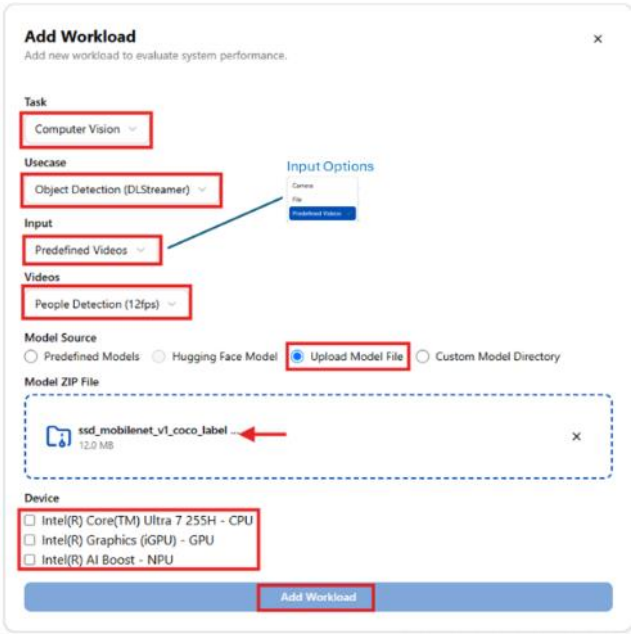
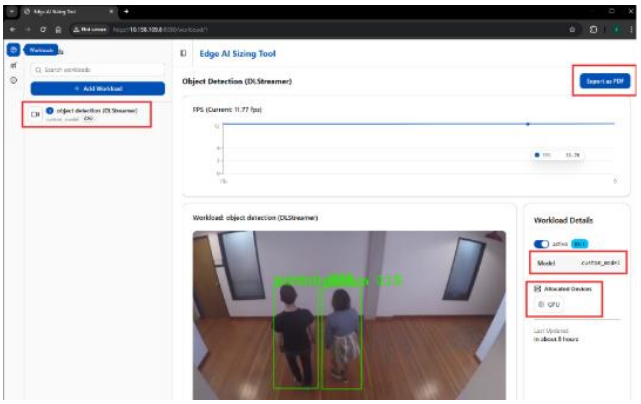


Figure 2: Example of a Video Processing and Analytics Pipeline.

Follow the steps below to orchestrate and run the workload that mimics your use-case

• **Add Workload** 	a. Click + Add Workload to Start the Workload Configuration.
• **Configure Workload** 	a. Set Task to "**Computer Vision**" . b. Set Use-case to "**Object Detection (DLStreamer)**". c. For Input – Consider the option that best suits your application *(Camera, File or Predefined Videos that comes with this application)*. d. Select the test video that works well with your AI Model. e. Upload your optimized custom model (.zip) file that should contain .bin and .xml files. Please refer to the "Custom Model Guide" section below for packaging details. f. Select target device that will load the model. Only one device per workload may be selected for model execution. g. Click "**Add Workload**" to start workload pipeline.
• **Verify Workload and Generate Report** 	a. Upon workload activation, the added workload will appear in the left pane of the workload interface and you will then be able to observe its status and workload behavior on the right pane as illustrated in the image. b. In order to generate a report, select "**Export as PDF**". By default, the report will be downloaded and saved in the default browser's Downloads folder.

Custom Model Guide

- Package your custom model into a ZIP file with the file structure below.

```
my-model.zip
├── model.xml
├── model.bin
└── labels.txt   # (optional)
```

- Only OpenVINO model formats are supported. ZIP must contain all necessary model files in OpenVINO IR format (e.g., .xml, .bin, and optionally labels.txt for object detection).

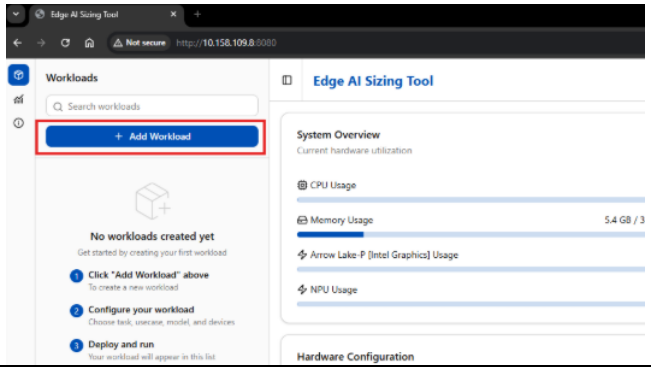
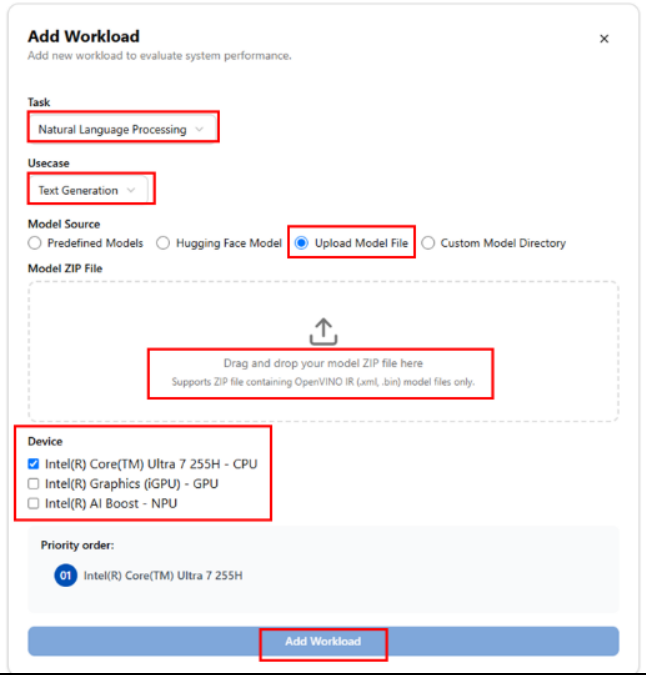
- To learn more, go to https://github.com/intel/edge-ai-sizing-tool/blob/main/custom_models/README.md#custom-model-directory

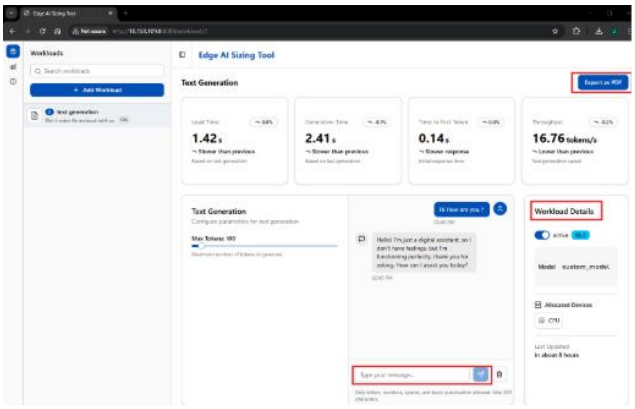
Note: Custom models loaded into testbed systems will be deleted after each user session.

3b. NLP or Text Generation

Perform the steps in this section if your application utilizes Natural Language Processing (NLP) or Text Generation efficiently in edge environments, ensuring fast responses without relying on cloud connectivity

Follow the steps below to orchestrate and run the workload that mimics your use-case.

• **Add Workload** 	a. Click "+ Add Workload" To Start Workload Configuration.
• **Configure Workload** 	a. Set Task to "**Natural Language Processing**". b. Set use-case to "**Text Generation**" c. Upload your optimized custom model (.zip) file that should contain .bin and .xml files). d. Select target device that will load the model. e. Click "**Add Workload**" to start workload pipeline.

• **Verify Workload and Generate Report** 	a. Verify workload listed on workload pane on the left and workload details as shown in this image. b. Enter a prompt in the “Type your message” field and hit the button to generate text. c. In order to generate a report, select “Export as PDF”. By default, the report will be downloaded and saved in the default browser’s Downloads folder.

Step 4: Submit Your Application Onboarding Request

Send the following information to the email address below:
intel.edge.ai.application.qualification@intel.com

- **Workload Report**

  Please send us the “Intel AI Edge Sizing Tool Report PDF” you generated in “Step 3: Configure Your Workload”.

- **Picture of Your System**

  Please provide a picture of your system if you did not use the Edge AI Testbed.

- **Questionnaire**

  Copy the table on the following page and paste it along with your answers in your email message. Please answer each question as best you can.

Intel® AI Edge Application Ready Verification Questionnaire

1. Please provide your ISBC information.

Your name	
Your Company name	
Your ISBC project name	

2. Which Edge AI System did you use during SW development and Onboarding Process?

System Manufacturer: *(ODM, OEM)*	
Model Name:	
CPU SKU: *(e.g. Intel® Core™ Ultra 7 Processor 155H)*	
GPU SKU: *(e.g. Integrated, Intel® ARC™ B570)*	

3. Where did you first hear about or discover this system? *Enter "yes" in the section that applies to you. Provide any additional information you believe is pertinent.*

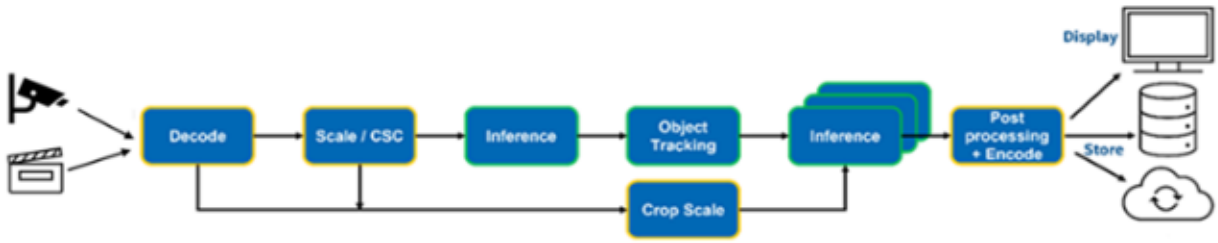
I used a system I found listed in the Intel® AI Edge Systems catalogue.	
I purchased an Intel Foundational Dev Kit.	
I used the Intel Edge AI testbed.	
I used a different system that was recommended by Intel or another party.	

4. Please provide a detailed description of your AI use-case application pipeline and block diagram.

(see an example of the answer to question #4 on the next page)

Question #4 (Example)

Below is an example to the question where we ask you to provide a detailed description of your AI use-case application pipeline and a block diagram.

EXAMPLE
Our software application uses real-time video processing and analytics software designed to detect, track, and analyze objects or behaviors from live or recorded video feeds. Beyond video, we also run Generative AI and Large Language Model (LLM) features — like answering questions, summarizing insights, or generating reports based on what's seen in the video. These powerful features require components like DL Streamer, Hugging Face and other needful extensions to make our workload efficient on Intel Architecture. Refer to the Block Diagram shown below: 

Step 5: Application Review, Promotion and Benefits Activation

Intel will review your submitted information and may contact you with any follow-up questions. Additionally, Intel may request to schedule an application review meeting where our representatives can meet with your team for an informal discussion about your application details. This session will help us better understand your solution, explore potential benefits and investigate future engagement opportunities.

Support

Our team is ready to help ensure a smooth and successful integration into the Edge AI Applications Program. For any support or assistance required during the onboarding process, please reach out to us at:

intel.edge.ai.application.qualification@intel.com