

LLaVA-Phi3

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Demo Environment

Development board: Jetson Orin series motherboard

SSD: 128G

Tutorial application scope: Whether the motherboard can run is related to the available memory of the system. The user's own environment and the programs running in the background may cause the model to fail to run

Motherboard model	Ollama	Open WebUI
Jetson Orin NX 16GB	√	√
Jetson Orin NX 8GB	√	√
Jetson Orin Nano 8GB	√	√
Jetson Orin Nano 4GB	√	√

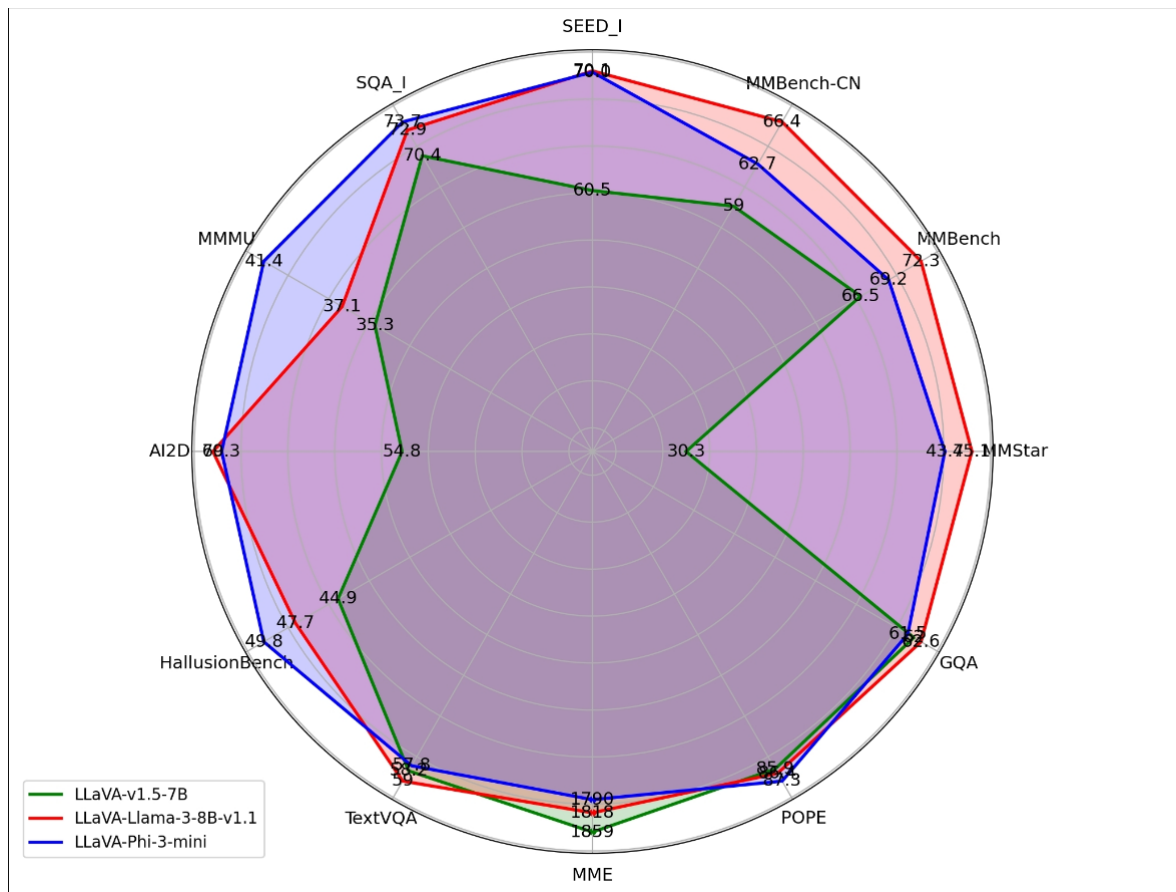
LLaVA-Phi3 is a LLaVA model fine-tuned from Phi 3 Mini 4k.

LLaVA (Large-scale Language and Vision Assistant) is a multimodal model that aims to achieve general vision and language understanding by combining visual encoders and large-scale language models.

Model size

Model	Parameters
LLaVA-Phi3	3.8B

Performance



Pull LLaVA-Phi3

Using the pull command will automatically pull the model from the Ollama model library:

```
ollama pull llava-phi3:3.8b
```

```

jetson@ubuntu:~$ ollama pull llava-phi3:3.8b
pulling manifest
pulling 377876be20ba... 100% 2.3 GB
pulling 004fc0969720... 100% 607 MB
pulling c608dc615584... 100% 149 B
pulling cadf483f03b5... 100% 155 B
pulling 3921dac664c1... 100% 492 B
verifying sha256 digest
writing manifest
removing any unused layers
success
jetson@ubuntu:~$
  
```

Use LLaVA-Phi3

Use LLaVA-Phi3 to identify local image content.

Run LLaVA-Phi3

If the system does not have a running model, the system will automatically pull the LLaVA-Phi3 3.8B model and run it:

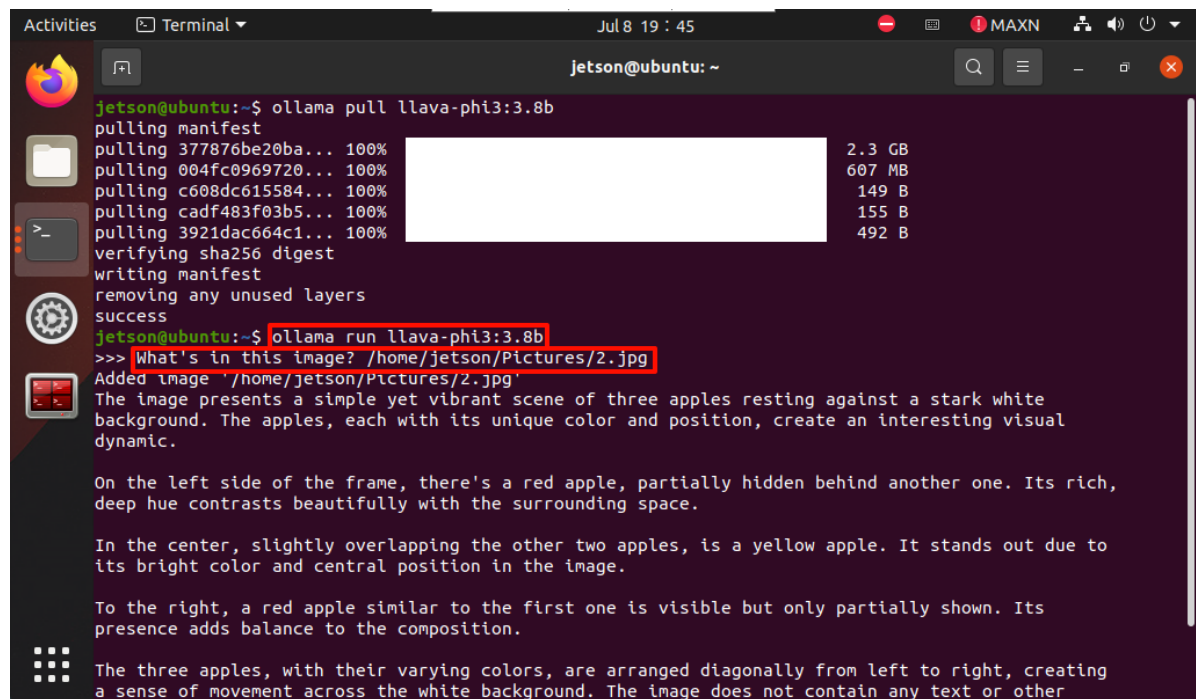
```
ollama run llava-phi3:3.8b
```

Have a conversation

```
what's in this image? /home/jetson/Pictures/2.jpg
```

The time to reply to the question depends on the hardware configuration, so be patient!

If the image does not have a corresponding image, you can download the image yourself (the resolution should not be too large), and put the image path after the question!



```
jetson@ubuntu:~$ ollama pull llava-phi3:3.8b
pulling manifest
pulling 377876be20ba... 100% 2.3 GB
pulling 004fc0969720... 100% 607 MB
pulling c608dc615584... 100% 149 B
pulling cadf483f03b5... 100% 155 B
pulling 3921dac664c1... 100% 492 B
verifying sha256 digest
writing manifest
removing any unused layers
success
jetson@ubuntu:~$ ollama run llava-phi3:3.8b
>>> What's in this image? /home/jetson/Pictures/2.jpg
Added image '/home/jetson/Pictures/2.jpg'
The image presents a simple yet vibrant scene of three apples resting against a stark white background. The apples, each with its unique color and position, create an interesting visual dynamic.

On the left side of the frame, there's a red apple, partially hidden behind another one. Its rich, deep hue contrasts beautifully with the surrounding space.

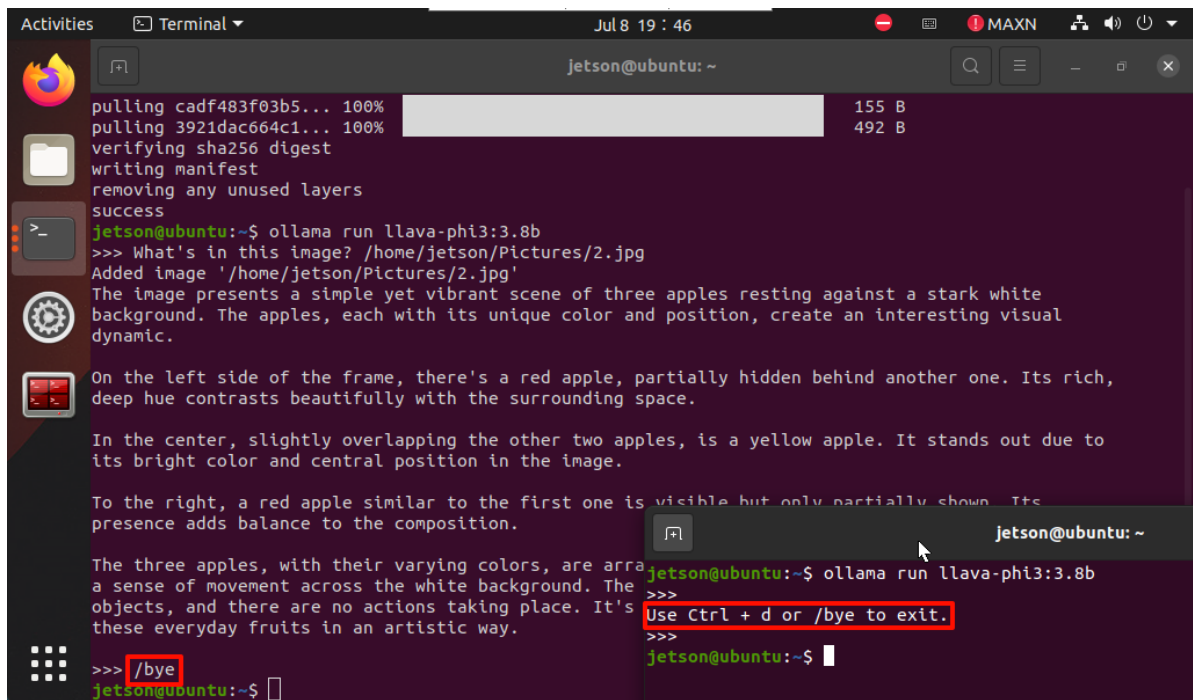
In the center, slightly overlapping the other two apples, is a yellow apple. It stands out due to its bright color and central position in the image.

To the right, a red apple similar to the first one is visible but only partially shown. Its presence adds balance to the composition.

The three apples, with their varying colors, are arranged diagonally from left to right, creating a sense of movement across the white background. The image does not contain any text or other
```

End the conversation

Use the `Ctrl+d` shortcut key or `/bye` to end the conversation!



```
Activities Terminal Jul 8 19:46 jetson@ubuntu: ~
pulling cadf483f03b5... 100% 155 B
pulling 3921dac664c1... 100% 492 B
verifying sha256 digest
writing manifest
removing any unused layers
success
jetson@ubuntu:~$ ollama run llava-phi3:3.8b
>>> What's in this image? /home/jetson/Pictures/2.jpg
Added image '/home/jetson/Pictures/2.jpg'
The image presents a simple yet vibrant scene of three apples resting against a stark white background. The apples, each with its unique color and position, create an interesting visual dynamic.

On the left side of the frame, there's a red apple, partially hidden behind another one. Its rich, deep hue contrasts beautifully with the surrounding space.

In the center, slightly overlapping the other two apples, is a yellow apple. It stands out due to its bright color and central position in the image.

To the right, a red apple similar to the first one is visible but only partially shown. Its presence adds balance to the composition.

The three apples, with their varying colors, are arranged in a way that creates a sense of movement across the white background. The objects, and there are no actions taking place. It's these everyday fruits in an artistic way.

>>> /bye
jetson@ubuntu:~$

jetson@ubuntu:~$ ollama run llava-phi3:3.8b
>>> Use Ctrl + d or /bye to exit.
>>>
jetson@ubuntu:~$
```

References

Ollama

Official website: <https://ollama.com/>

GitHub: <https://github.com/ollama/ollama>

LLaVA-Phi3

GitHub: <https://github.com/InternLM/xtuner/tree/main>

Ollama corresponding model: <https://ollama.com/library/llava-phi3>