AI model environment deployment

> **Demonstration environment**

Development board : Raspberry Pi 5B (8G RAM)

SD(TF)card : 64G (Above 16G, the larger the capacity, the more models can be experienced)

```
Raspberry Pi 5B (8G RAM): Run 8B and below parameter models
Raspberry Pi 5B (4G RAM): Run 3B and below parameter models
Raspberry Pi 5B (2G RAM): Run 0.5B and below parameter models
```

Ollama is an open-source tool aimed at simplifying the deployment and runtime process of large language models, allowing users to use high-quality language models in their local environment.
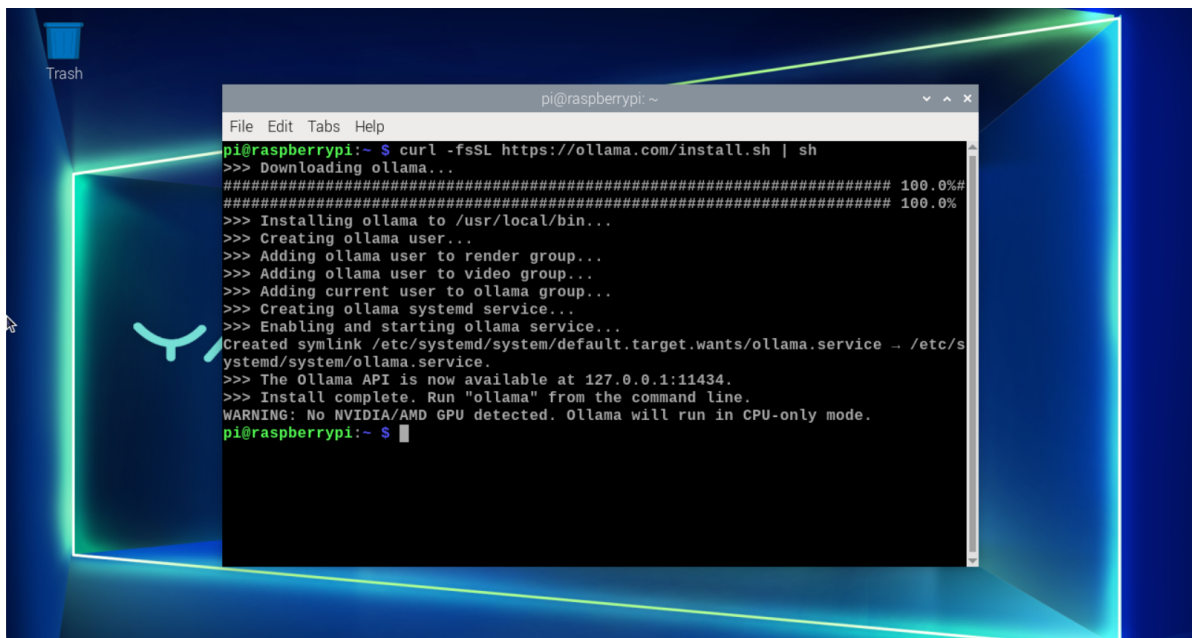
LLM

Large Language Models, abbreviated as LLM, is a type of advanced text generation system based on artificial intelligence technology. Its main feature is the ability to learn and understand human language through large-scale training data, and to generate natural and fluent text.

Ollama installation

Tutorial demonstration on using scripts to install Ollama in Raspberry Pi 5.

Script installation

```
curl -fsSL https://ollama.com/install.sh | sh
```
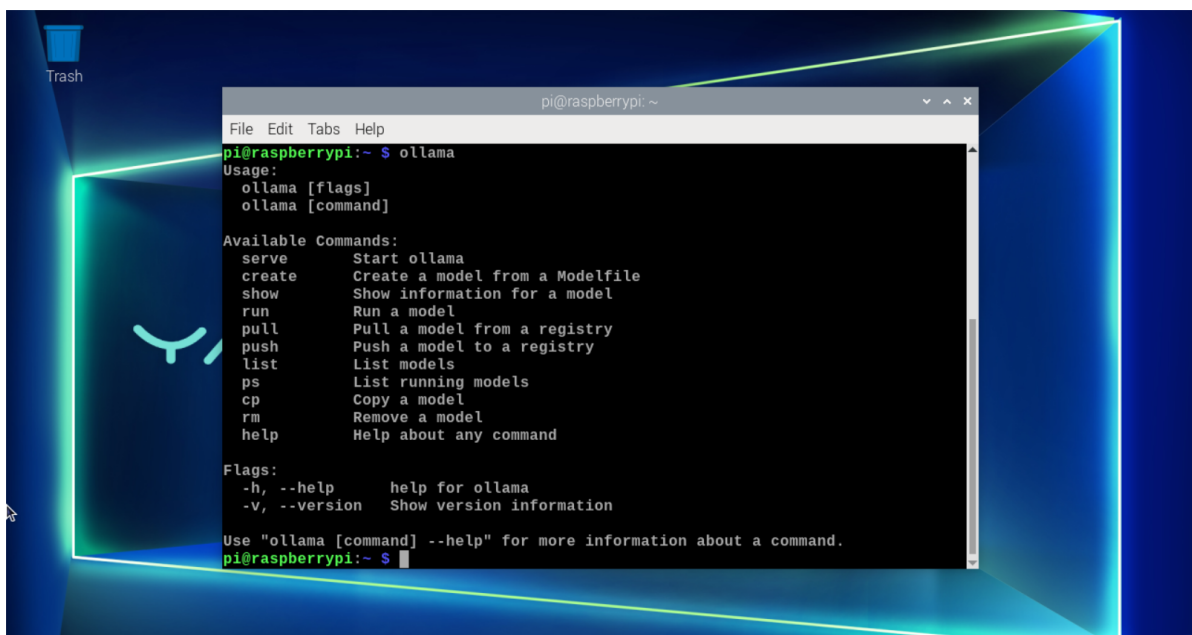
The installation process takes a long time, please be patient and wait;

When the Raspberry Pi terminal displays "Install complete", it indicates that Ollama has been successfully installed!

> Warning: NVIDIA/AMD GPU not detected, Ollama will run in CPU mode, we can ignore this prompt directly

Ollama use

When entering the command **ollama** on the terminal, we can see the following prompt.

Command	Function
ollama serve	Start ollama
ollama create	Create a model from a model file
ollama show	Display model information
ollama run	Operational model
ollama pull	Pulling models from the registry
ollama push	Push the model to the registry
ollama list	List models
ollama ps	List the running models
ollama cp	Copy model
ollama rm	Delete model
ollama help	Get help information about any command

Ollama uninstall

- Delete service

```
sudo systemctl stop ollama
sudo systemctl disable ollama
sudo rm /etc/systemd/system/ollama.service
```

- Delete file

```
sudo rm $(which ollama)
```

- Delete model and service users and groups

```
sudo rm -r /usr/share/ollama
sudo userdel ollama
sudo groupdel ollama
```

Reference material

> **Ollama**

Website：https://ollama.com/

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