# jetson nano 刷机

# SD Card Formatter 下载安装

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### NVIDIA JetPack 介绍

#### KEY FEATURES IN JETPACK

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NVIDIA L4T provides the bootloader, Linux kernel 4.9, necessary firmwares, NVIDIA drivers, sample filesystem based on Ubuntu 18.04, and more.

JetPack 4.6.1 includes L4T 32.7.1 with these highlights:

Support for Jetson AGX Xavier 64GB and Jetson Xavier NX 16GB

#### TensorRT

TensorRT is a high performance deep learning inference runtime for image classification, segmentation, and object detection neural networks. TensorRT is built on CUDA, NVIDIA's parallel programming model, and enables you to optimize inference for all deep learning frameworks. It includes a deep learning inference optimizer and runtime that delivers low latency and high-throughput for deep learning inference applications.

JetPack 4.6.1 includes TensorRT 8.2.1

#### cuDNN

CUDA Deep Neural Network library provides high-performance primitives for deep learning frameworks. It provides highly tuned implementations for standard routines such as forward and backward convolution, pooling, normalization, and activation layers.

JetPack 4.6.1 includes cuDNN 8.2.1

#### CUDA

CUDA Toolkit provides a comprehensive development environment for C and C++ developers building GPU-accelerated applications. The toolkit includes a compiler for NVIDIA GPUs, math libraries, and tools for debugging and optimizing the performance of your applications.

JetPack 4.6.1 includes CUDA 10.2

#### Multimedia API

The Jetson Multimedia API package provides low level APIs for flexible application development.

Camera application API: libargus offers a low-level frame-synchronous API for camera applications, with per frame camera parameter control, multiple (including synchronized) camera support, and EGL stream outputs. RAW output CSI cameras needing ISP can be used with either libargus or GStreamer plugin. In either case, the V4L2 media-controller sensor driver API is used.

Sensor driver API: V4L2 API enables video decode, encode, format conversion and scaling functionality. V4L2 for encode opens up

### NVIDIA JetPack 介绍

• 包含了 OPENCV 4.1 版本

• 支持 deepstream 6.0 版本

### jetPack 下载安装

- 下载地址:
- https://developer.nvidia.com/embedded/jetpack-sdk-461

### 实操烧录过程

- TF读卡器插入电脑
- 防坑提示:
  - 读卡器也必须是支持USB3.0 以上的
  - 电脑的USB接口也必须是 USB3.0 以上的



## 观看摄像头录制

• jetson nano 安装过程