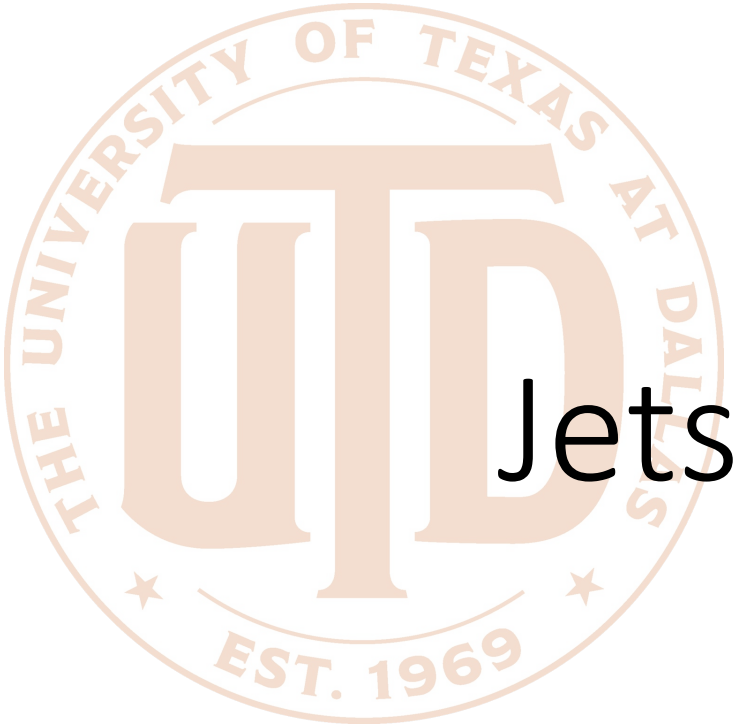


Jetson Orin Nano Setup

CS 4391 Introduction Computer Vision

Instructor: Yu Xiang

The University of Texas at Dallas

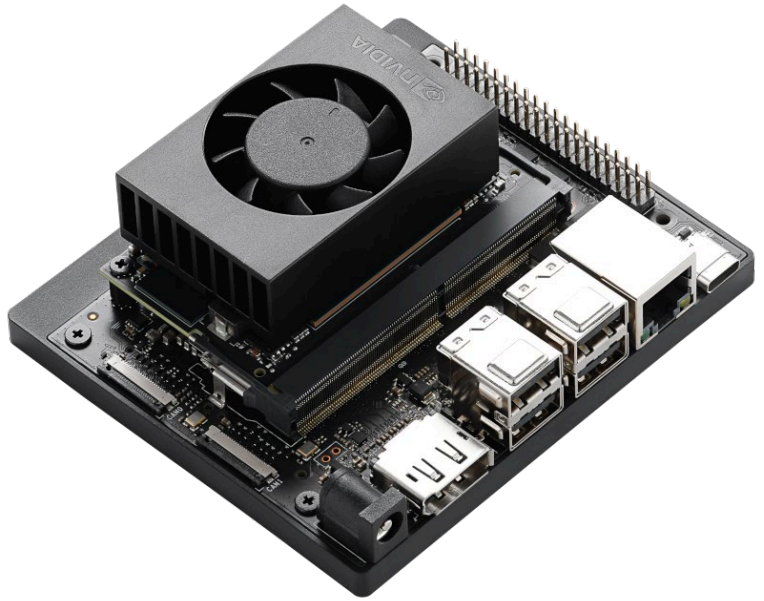
Introduction

- Introduction of the Jetson Orin Nano from NVIDIA: https://developer.nvidia.com/embedded/learn/get-started-jetson-orin-nano-devkit#intro

- Initial Setup Guide for Jetson Orin Nano Developer Kit https://www.jetson-ai-lab.com/tutorials/initial-setup-jetson-orin-nano/

Unboxing

Part	Quantity
NVIDIA Jetson Orin Nano Super Developer Kit	1
Keyboard and mouse	1
SD Card Reader	1
DisplayPort to HDMI Adapter	1
Logitech C270 HD Webcam	1
SanDisk 128GB Extreme microSDXC	1
RaspBerry Pi Screen, 10.1 Inch Touchscreen	1
8MP IMX219 Camera	-
Instructions Sheet	2

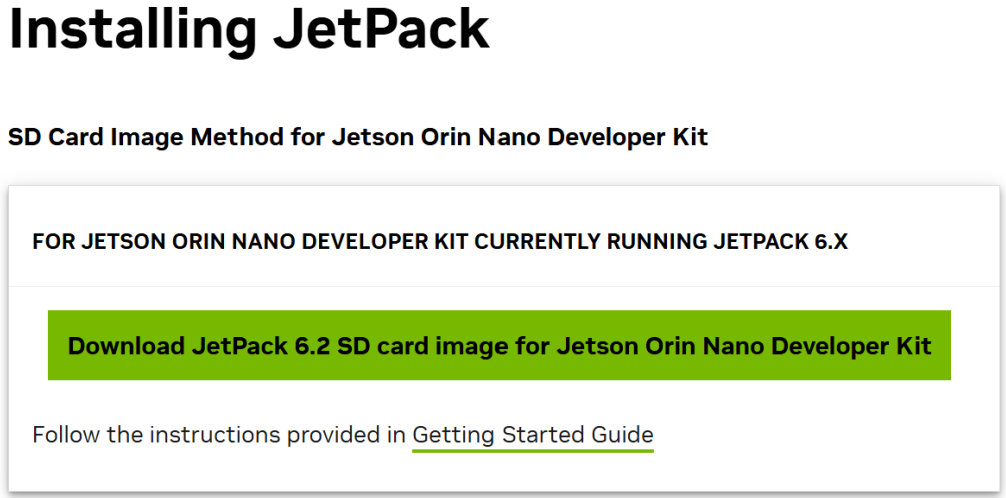


Display https://www.amazon.com/dp/B0B9M5SCG4?th=1

Step 1: Download JetPack 6.2 image

- https://developer.nvidia.com/embedded/jetpack-sdk-62

- JetPack 6.2 is the latest production release of JetPack 6. This release includes Jetson Linux 36.4.3, featuring the Linux Kernel 5.15 and an Ubuntu 22.04-based root file system. The Jetson AI stack packaged with JetPack 6.2 includes CUDA 12.6, TensorRT 10.3, cuDNN 9.3, VPI 3.2, DLA 3.1, and DLFW 24.0.



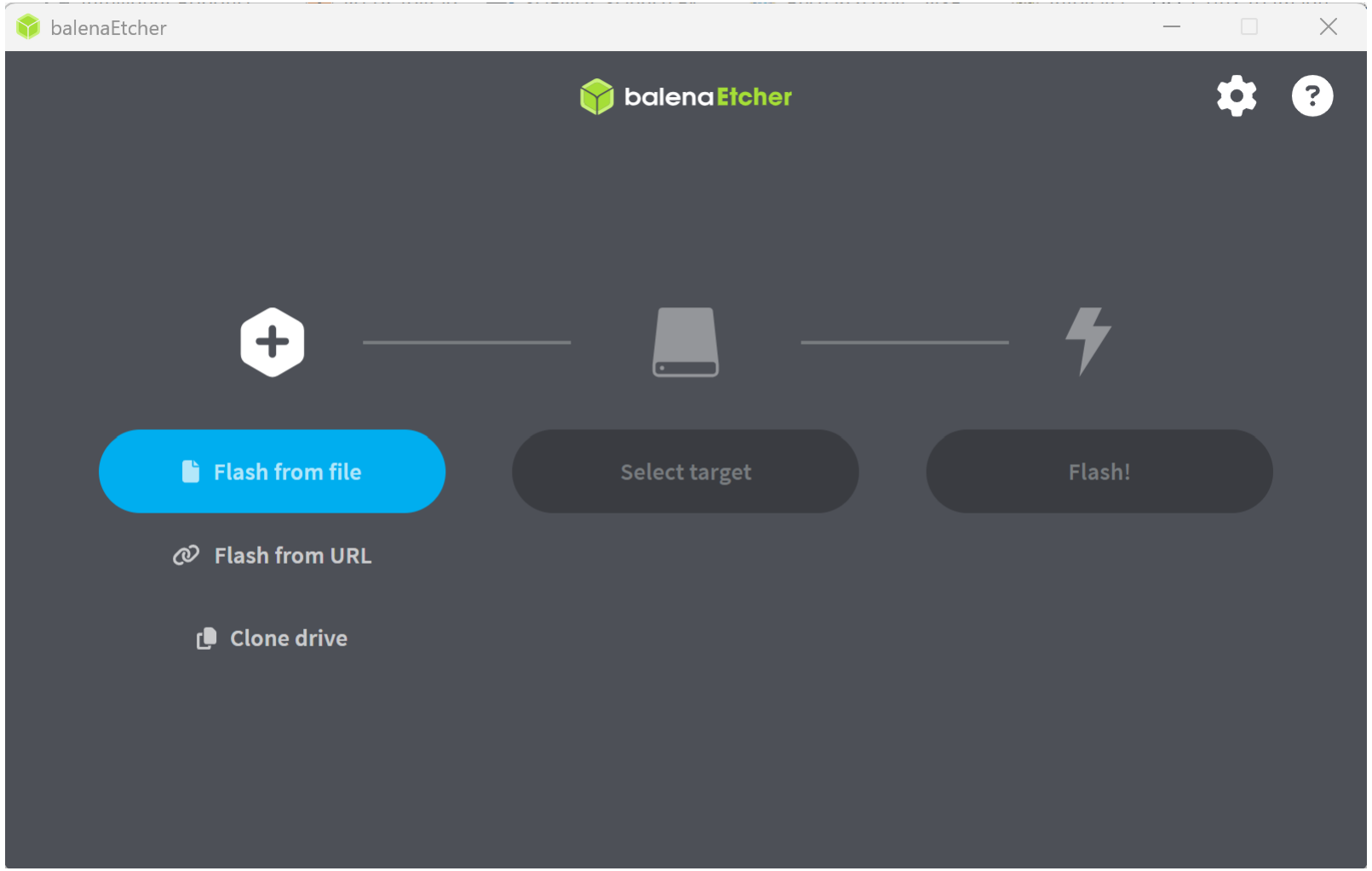
Do not unzip the file

Step 2: Download Balena Etcher

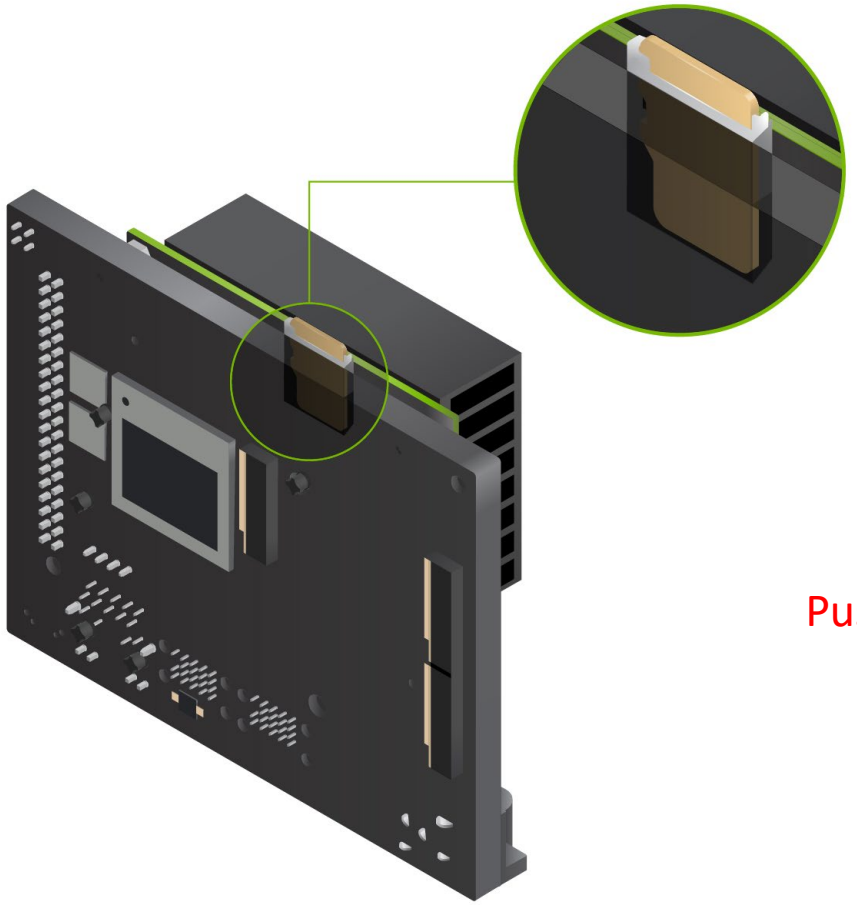
- https://etcher.balena.io/

Step 3: Flash the SD Card

Select the zip file



Step 4: Insert the flashed microSD card

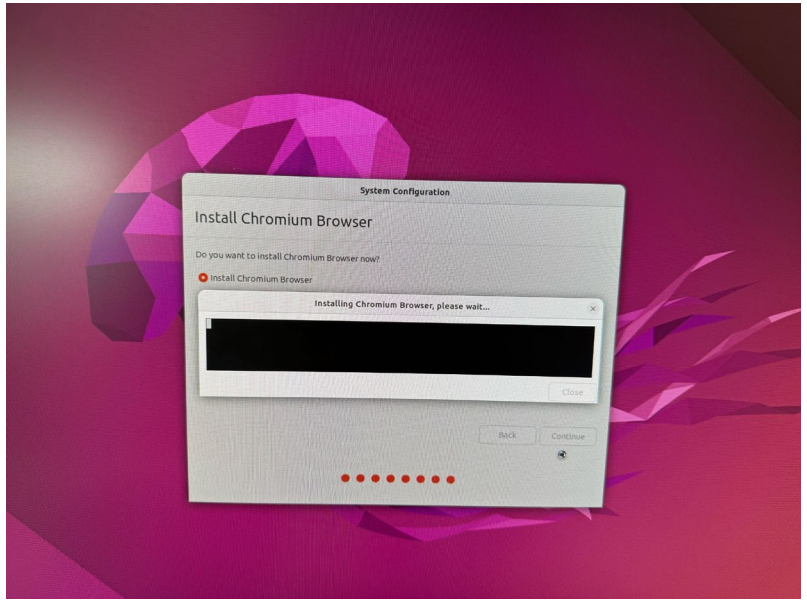


Push the SD card into the slot

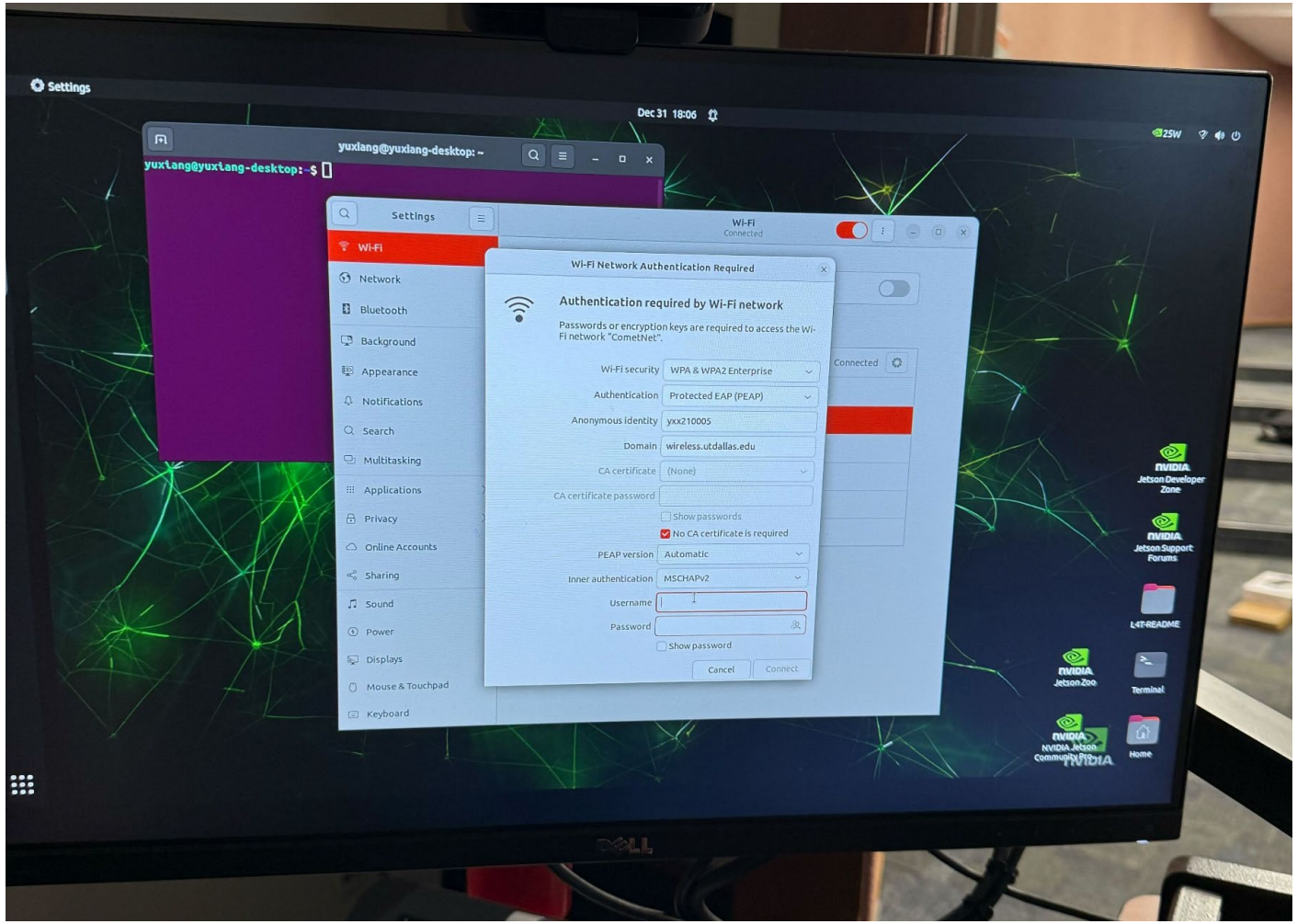
Step 5: Software setup

- Connect the keyboard, mouse, monitor
- **Power-on** by plugging the DC power supply

- **Complete the initial software setup**
  - Make sure Wi-Fi is connected. Use **UTDGuest**
  - Install the Chromium browser



Connecting to UTD WiFi



Step 5: Software setup

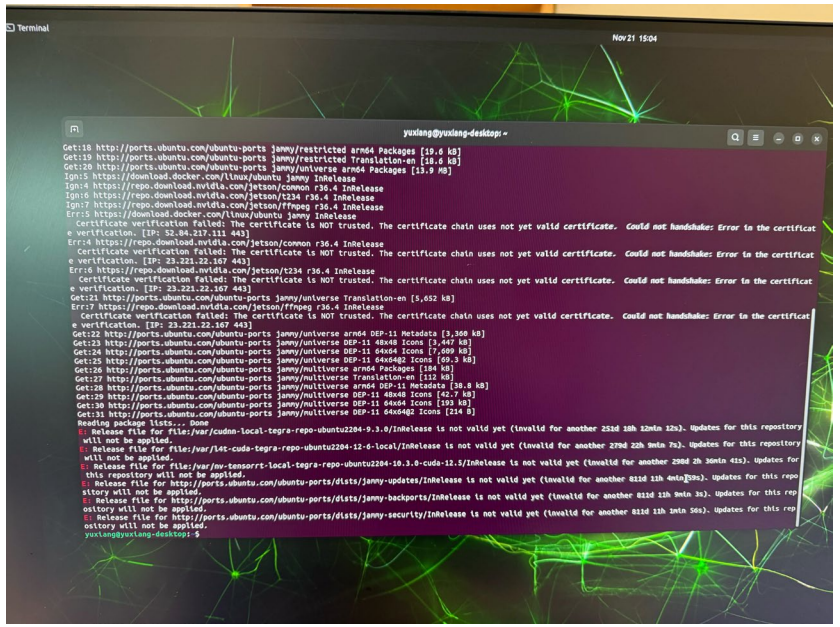
- Open a terminal: ctrl + alt + t
- sudo apt update
- sudo apt upgrade
- sudo reboot

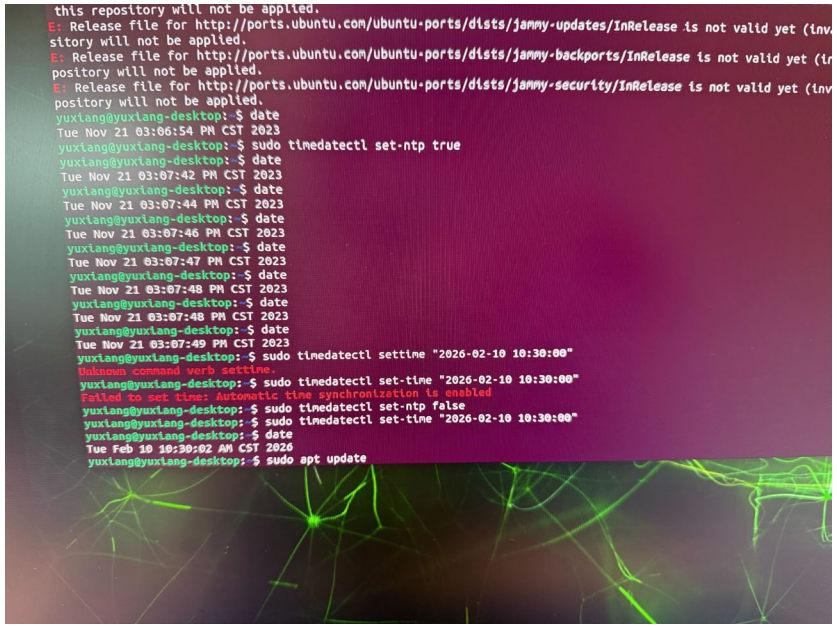
Dealing with Errors

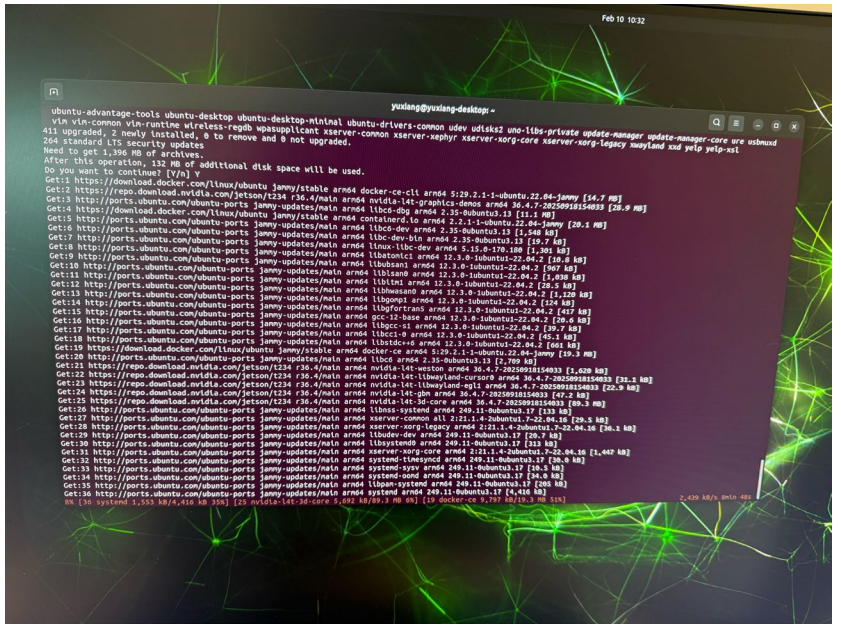
- Make sure wifi is connected
- date
- sudo timedatectl set-time "2026-02-10 10:30:00“

```bash
ping -c 3 8.8.8.8
```

- ✅ Replies → network path OK
- ❌ 100% loss → Wi-Fi is not actually usable

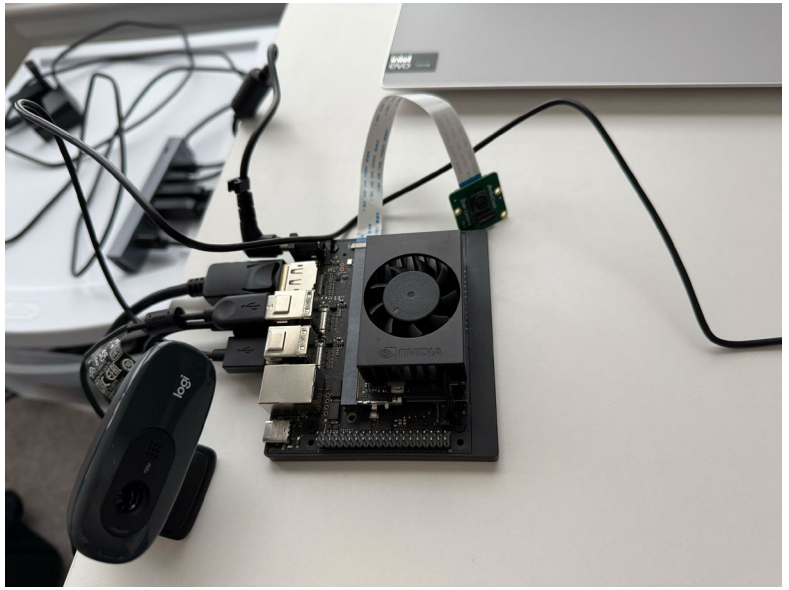






Step 6: Set up the USB camera

- Open a terminal: ctrl + alt + t
- sudo apt install -y python3-pip
- pip install opencv-python
- git clone https://github.com/yuxng/cs4391_spring26.git
- python test_usb_camera.py



Questions?