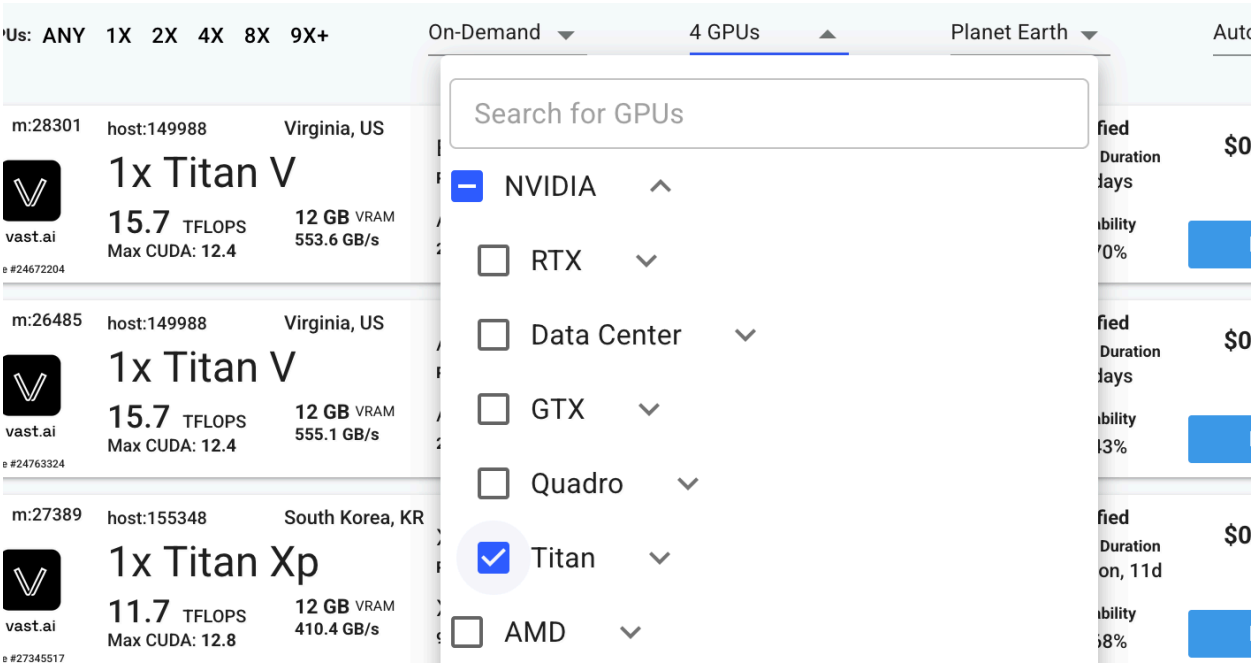
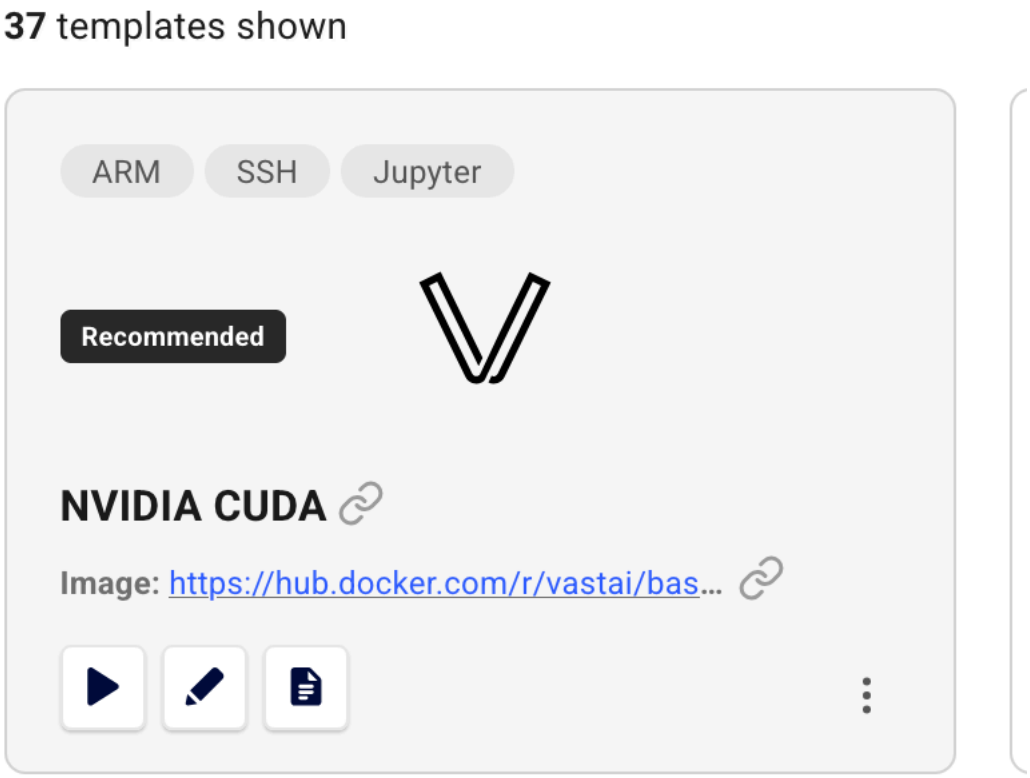
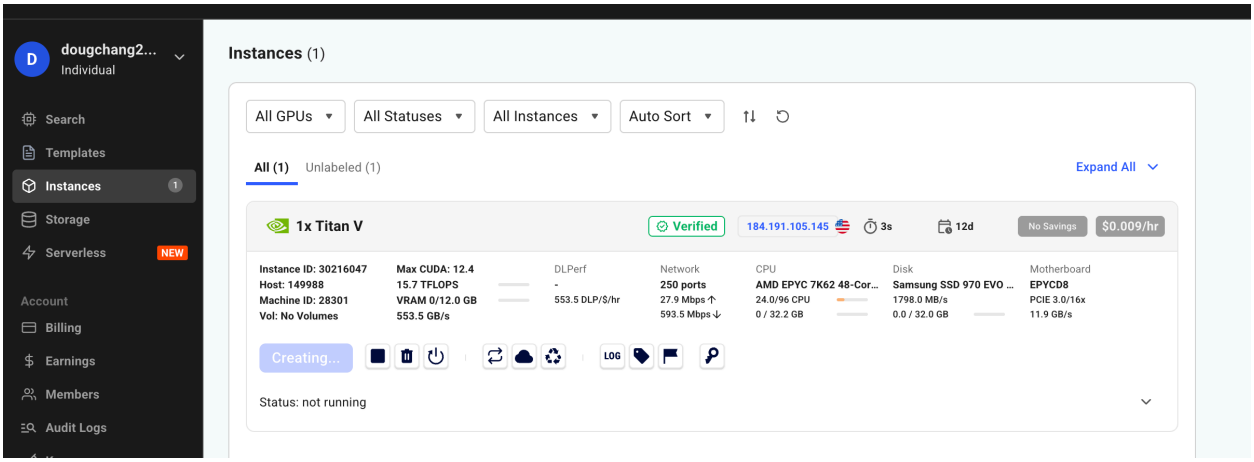
Vast ai login

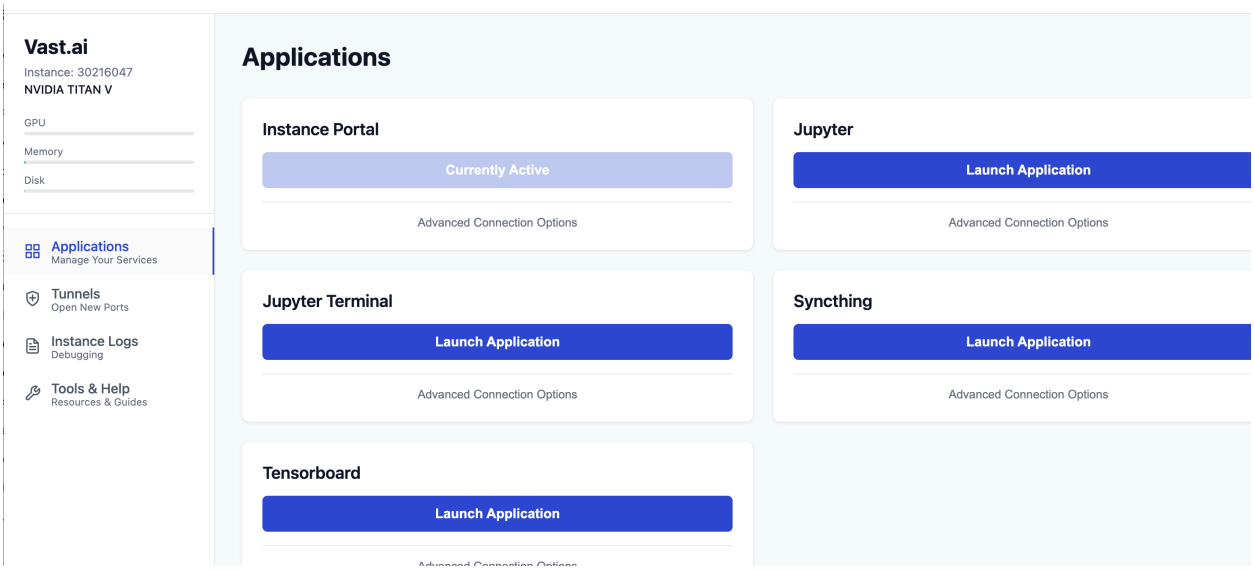




Verify when up



Verify cuda installed.



```
Activated conda/uv virtual environment at /venv/main
(main) root@C.30216047:/workspace$ nvidia-smi
Mon Jan 19 05:35:15 2026
+-----------------------------------------------------------------------------------------+
| NVIDIA-SMI 550.127.05             Driver Version: 550.127.05     CUDA Version: 12.4     |
|-----------------------------------------+------------------------+----------------------+
| GPU  Name                 Persistence-M | Bus-Id          Disp.A | Volatile Uncorr. ECC |
| Fan  Temp   Perf          Pwr:Usage/Cap |           Memory-Usage | GPU-Util  Compute M. |
|                                         |                        |               MIG M. |
|=========================================+========================+======================|
|   0  NVIDIA TITAN V                 On  |   00000000:41:00.0 Off |                  N/A |
|  0%   25C    P8             23W /  250W |       1MiB /  12288MiB |      0%      Default |
|                                         |                        |                  N/A |
+-----------------------------------------+------------------------+----------------------+

+-----------------------------------------------------------------------------------------+
| Processes:                                                                              |
|  GPU   GI   CI        PID   Type   Process name                              GPU Memory |
|        ID   ID                                                               Usage      |
|=========================================================================================|
|  No running processes found                                                             |
+-----------------------------------------------------------------------------------------+
(main) root@C.30216047:/workspace$ nvcc --version
nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2024 NVIDIA Corporation
Built on Thu_Mar_28_02:18:24_PDT_2024
Cuda compilation tools, release 12.4, V12.4.131
Build cuda_12.4.r12.4/compiler.34097967_0
(main) root@C.30216047:/workspace$
```

python -m pip install uvicorn fastapi

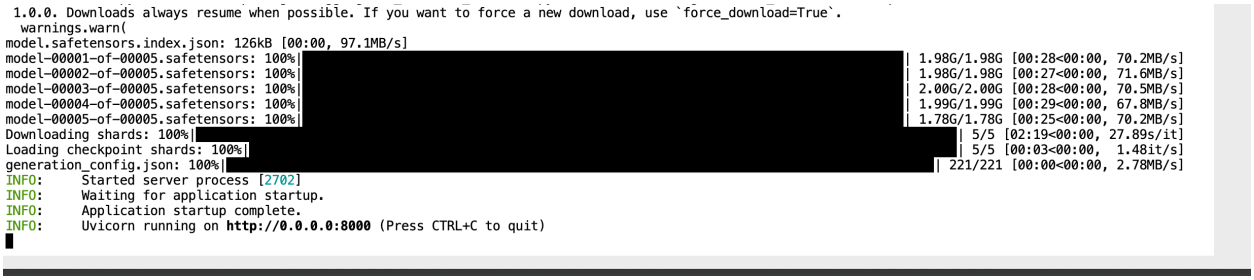
(main) root@C.30216047:/workspace$ python -m uvicorn server:app --host 0.0.0.0 --port 8000
Traceback (most recent call last):
  File "/venv/main/lib/python3.10/runpy.py", line 196, in _run_module_as_main
    return _run_code(code, main_globals, None,
  File "/venv/main/lib/python3.10/runpy.py", line 86, in _run_code
    exec(code, run_globals)
  File "/venv/main/lib/python3.10/site-packages/uvicorn/__main__.py", line 4, in <module>
    uvicorn.main()
  File "/venv/main/lib/python3.10/site-packages/click/core.py", line 1485, in __call__
    return self.main(*args, **kwargs)
  File "/venv/main/lib/python3.10/site-packages/click/core.py", line 1406, in main
    rv = self.invoke(ctx)
  File "/venv/main/lib/python3.10/site-packages/click/core.py", line 1269, in invoke

```
    return ctx.invoke(self.callback, **ctx.params)
  File "/venv/main/lib/python3.10/site-packages/click/core.py", line 824, in invoke
    return callback(*args, **kwargs)
  File "/venv/main/lib/python3.10/site-packages/uvicorn/main.py", line 424, in main
    run(
  File "/venv/main/lib/python3.10/site-packages/uvicorn/main.py", line 594, in run
    server.run()
  File "/venv/main/lib/python3.10/site-packages/uvicorn/server.py", line 67, in run
    return asyncio_run(self.serve(sockets=sockets), loop_factory=self.config.get_loop_factory())
  File "/venv/main/lib/python3.10/site-packages/uvicorn/_compat.py", line 60, in asyncio_run
    return loop.run_until_complete(main)
  File "/venv/main/lib/python3.10/asyncio/base_events.py", line 649, in run_until_complete
    return future.result()
  File "/venv/main/lib/python3.10/site-packages/uvicorn/server.py", line 71, in serve
    await self._serve(sockets)
  File "/venv/main/lib/python3.10/site-packages/uvicorn/server.py", line 78, in _serve
    config.load()
  File "/venv/main/lib/python3.10/site-packages/uvicorn/config.py", line 439, in load
    self.loaded_app = import_from_string(self.app)
  File "/venv/main/lib/python3.10/site-packages/uvicorn/importer.py", line 22, in
import_from_string
    raise exc from None
  File "/venv/main/lib/python3.10/site-packages/uvicorn/importer.py", line 19, in
import_from_string
    module = importlib.import_module(module_str)
  File "/venv/main/lib/python3.10/importlib/__init__.py", line 126, in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
  File "<frozen importlib._bootstrap>", line 1050, in _gcd_import
  File "<frozen importlib._bootstrap>", line 1027, in _find_and_load
  File "<frozen importlib._bootstrap>", line 1006, in _find_and_load_unlocked
  File "<frozen importlib._bootstrap>", line 688, in _load_unlocked
  File "<frozen importlib._bootstrap_external>", line 883, in exec_module
  File "<frozen importlib._bootstrap>", line 241, in _call_with_frames_removed
  File "/workspace/server.py", line 7, in <module>
    import torch
ModuleNotFoundError: No module named 'torch'
```

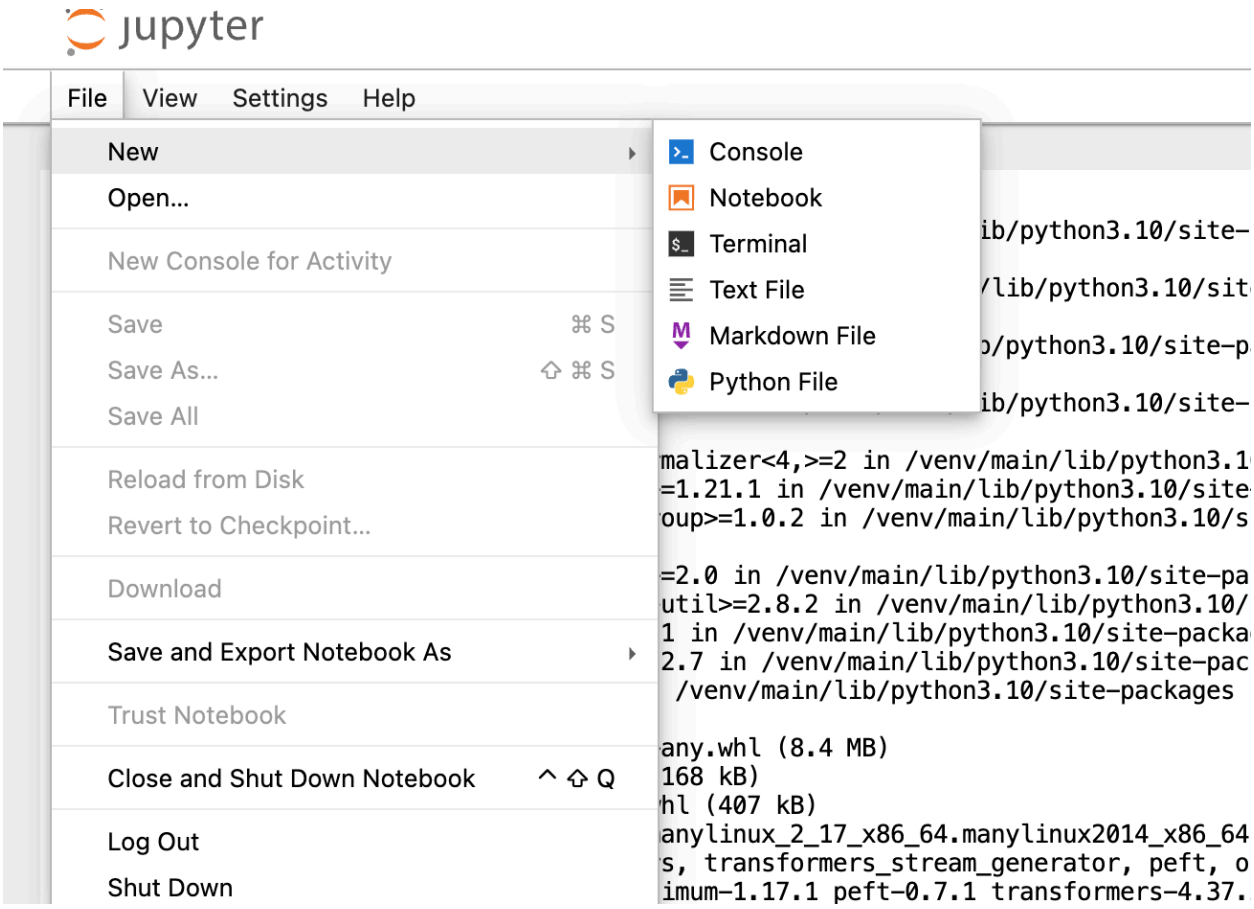
```
pip install torch --index-url https://download.pytorch.org/whl/cu118
python -m pip install transformers pillow safetensors huggingface_hub accelerate
pip install matplotlib tiktoken
pip install einops transformers_stream_generator
python -m pip uninstall -y transformers_stream_generator
```

```
python -m pip uninstall -y transformers
python -m pip install "transformers==4.37.2"
python -m pip install transformers_stream_generator
python -m pip install -U "optimum[gptq]"
python -m pip install -U auto-gptq
```

```
python -m pip uninstall -y transformers peft optimum auto-gptq
transformers_stream_generator

python -m pip install \
  "transformers==4.37.2" \
  "peft==0.7.1" \
  "optimum==1.17.1" \
  "auto-gptq==0.7.1" \
  "transformers_stream_generator" \
  "accelerate" "safetensors" "pillow" "huggingface_hub"


python - <<'PY'
import transformers
import importlib.metadata as md
print("transformers", transformers.__version__)
print("peft", md.version("peft"))
print("optimum", md.version("optimum"))
print("auto-gptq", md.version("auto-gptq"))
PY
```



Get a new terminal. Have to use Jupyter server not UI



Verify image at : rm -f example.jpg
curl -L -o example.jpg "https://upload.wikimedia.org/wikipedia/commons/2/27/Dog_Looking_Into_The_Sunset.jpg"
file example.jpg
ls -lh example.jpg

Makes sure it exists and is 3m not 98 or 100 bytes

— client.py—

```
import base64
import requests

with open("example.jpg", "rb") as f:
    image_b64 = base64.b64encode(f.read()).decode("utf-8")

payload = {
    "prompt": "Describe the image.",
    "image_b64": image_b64,
    "max_new_tokens": 128,
    "temperature": 0.2
}

r = requests.post(
    "http://127.0.0.1:8000/chat",
    json=payload,
    timeout=300
)

print("status:", r.status_code)
print(r.text)
```

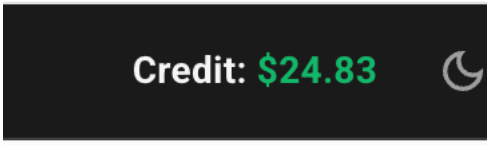
```
(main) root@C.30216047:/workspace$ vim client.py
(main) root@C.30216047:/workspace$ python client.py
status: 200
{"text":"A dog wearing a red collar, watching the sunset."}
(main) root@C.30216047:
```

—server.py—

(main) root@C.30216047:/workspace$ cat server.py

```
import base64
import io
import os
import tempfile
from typing import Optional

import torch
from fastapi import FastAPI
from pydantic import BaseModel
from PIL import Image
from transformers import AutoTokenizer, AutoModelForCausalLM


# ----------------------------
# Model load (Qwen-VL-Chat-Int4)
# ----------------------------
MODEL_ID = os.environ.get("MODEL_ID", "Qwen/Qwen-VL-Chat-Int4")

device = "cuda" if torch.cuda.is_available() else "cpu"

tokenizer = AutoTokenizer.from_pretrained(
    MODEL_ID,
    trust_remote_code=True,
)

model = AutoModelForCausalLM.from_pretrained(
    MODEL_ID,
    device_map="auto",          # let HF place on GPU if available
    trust_remote_code=True,
).eval()


# ----------------------------
# FastAPI schema
# ----------------------------
class ChatReq(BaseModel):
    prompt: str
    image_b64: str
    max_new_tokens: int = 64
    temperature: float = 0.2  # kept for API compatibility; ignored when do_sample=False


app = FastAPI()


def decode_image(image_b64: str) -> Image.Image:
    raw = base64.b64decode(image_b64)
    img = Image.open(io.BytesIO(raw)).convert("RGB")
    return img
```

```
@app.get("/health")
def health():
    dev = torch.cuda.get_device_name(0) if torch.cuda.is_available() else "cpu"
    return {"ok": True, "cuda": torch.cuda.is_available(), "device": dev}


@app.post("/chat")
@torch.inference_mode()
def chat(req: ChatReq):
    # 1) decode base64 image
    img = decode_image(req.image_b64)

    # 2) resize to keep vision compute reasonable
    img.thumbnail((768, 768))

    # 3) Qwen-VL expects an image path in tokenizer.from_list_format
    with tempfile.NamedTemporaryFile(suffix=".jpg", delete=True) as f:
        img.save(f.name, format="JPEG", quality=90)

        query = tokenizer.from_list_format([
            {"image": f.name},
            {"text": req.prompt},
        ])

        # 4) IMPORTANT: use query=query and do_sample=False for stability
        text, _ = model.chat(
            tokenizer,
            query=query,
            history=None,
            do_sample=False,
            max_new_tokens=req.max_new_tokens,
        )

    return {"text": text}

(main) root@C.30216047:/workspace$
```



.07 cost to debug.