### Setup: AWS EC2 GPU Instance (g6.xlarge)

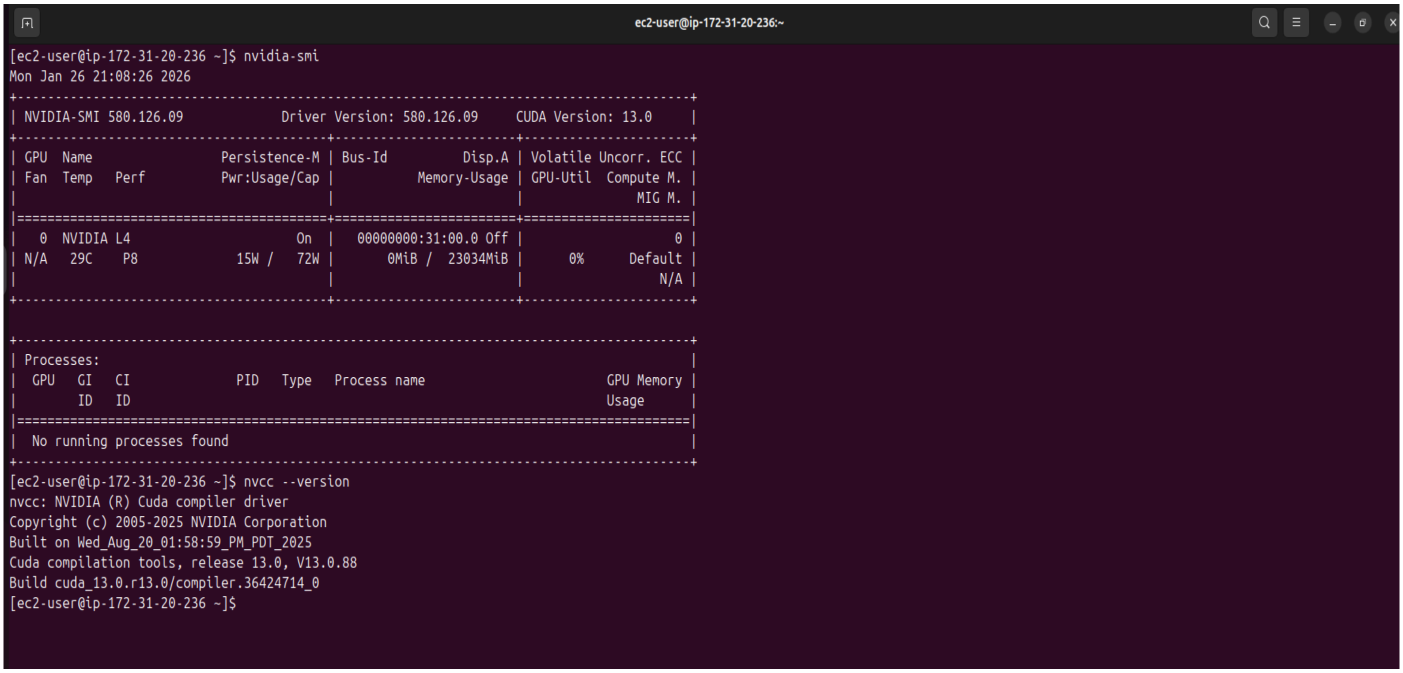
For cost-efficiency, I used a g6.xlarge single-GPU instance.

**Launch Steps:**

1. **EC2 Console** - Launch new instance
2. **AMI Selection** - Use "Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260120"
    - Alternatively, choose any base OS and install drivers manually
    - Note: Deep learning Ubuntu 22.X variant had NVIDIA driver detection issues. So this did not work for me
3. **Instance Type** - Select g6.xlarge
    - **Important**: Request vCPU quota increase beforehand (approval may take time; good luck if you account is new)
4. **SSH Access** - Configure key pair (.pem file)
5. **Network** - Default settings; customized security group to allow SSH from my public IP
6. **Storage** - gp3, 125 GB root volume

**Verification:**

After connecting via SSH, run `nvidia-smi` to confirm GPU availability.



```
[ec2-user@ip-172-31-20-236 ~]$ nvidia-smi
Mon Jan 26 21:08:26 2026
+-----------------------------------------------------------------------------------------+
| NVIDIA-SMI 580.126.09             Driver Version: 580.126.09     CUDA Version: 13.0     |
+-----------------------------------------+------------------------+----------------------+
| 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 L4                      On  |   00000000:31:00.0 Off |                    0 |
| N/A   29C    P8             15W /   72W |       0MiB /  23034MiB |      0%      Default |
|                                         |                        |                  N/A |
+-----------------------------------------+------------------------+----------------------+

+-----------------------------------------------------------------------------------------+
| Processes:                                                                              |
|  GPU   GI   CI              PID   Type   Process name                        GPU Memory |
|        ID   ID                                                               Usage      |
|=========================================================================================|
|  No running processes found                                                             |
+-----------------------------------------------------------------------------------------+
[ec2-user@ip-172-31-20-236 ~]$ nvcc --version
nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2025 NVIDIA Corporation
Built on Wed_Aug_20_01:58:59_PM_PDT_2025
Cuda compilation tools, release 13.0, V13.0.88
Build cuda_13.0.r13.0/compiler.36424714_0
[ec2-user@ip-172-31-20-236 ~]$
```

In this instance, python was already installed.