

Welcome to Amazon Lightsail for Research at Duke University!

IMPORTANT!

- Your instance will shut down automatically without notice if left idle for >15 minutes. You should periodically save your work to minimize loss of information.
- Please be mindful of resource costs and stop your virtual computer when not in use.

Getting Started

Step 1: Login to Lightsail for Research (LFR)

You have been provided a unique onetime password to first get started with your account. Once you log in for the first time, you will be prompted to update your password. Your password must have at least 1 uppercase letter, 1 number and a special character.

Note: The account ID/alias is 'du-mids' rather than your individual account ID.

Console sign-in link: <https://du-mids.signin.aws.amazon.com/console>

Username: your Duke NetID

Sign in as IAM user

Account ID (12 digits) or account alias

du-mids

IAM user name

kh495

Password

.....

☐ Remember this account

Sign in

Step 2: Open your LFR VM Dashboard

LFR Console: <https://lfr.console.aws.amazon.com/lr/research/webapp/home/virtual-computers>

[Lightsail for Research](#) > [Virtual computers](#) > kh495-gpu-xl

kh495-gpu-xl [info](#)

Actions ▼

Start computer



kh495-gpu-xl

Status

⊞ Stopped

Public IP

-

AWS Region

US East (Ohio) [us-east-2]

Month to date cost estimate (USD)

- ⓘ

Monthly usage estimate

- ⓘ

Plan

GPU XL

Dashboard

Storage

Snapshots

Tags

Ubuntu

To start analyzing data, open your research application.

kh495-gpu-xl can also be accessed through SSH by default using the IP address: on port 22

[Learn how to connect to your computer using SSH](#) ⓘ

Launch Ubuntu ⓘ

Step 3: Launch your Virtual Computer

Start Computer > Status: Running > Launch Ubuntu

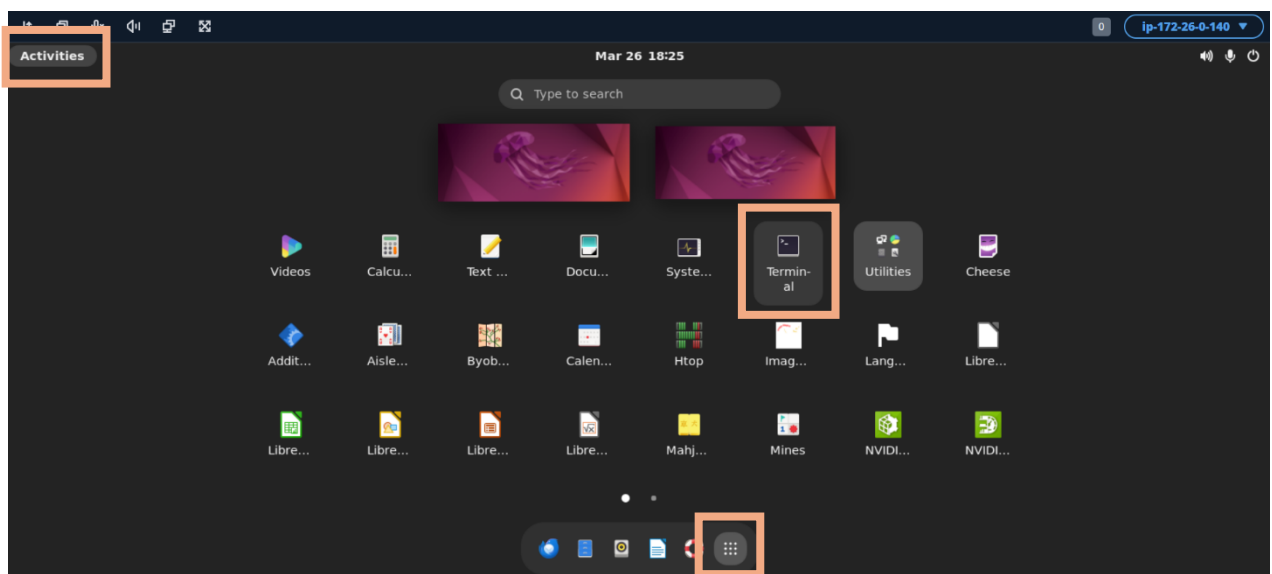
Note: You will need to enable browser pop-ups for your Virtual Computer to launch.

Complete the Ubuntu setup to configure your keyboard and privacy settings.



Step 4: Open Terminal

From Home screen > Activities > Show Applications > Terminal



Note: You can also use the Terminal launch shortcut: CTRL + ALT + T

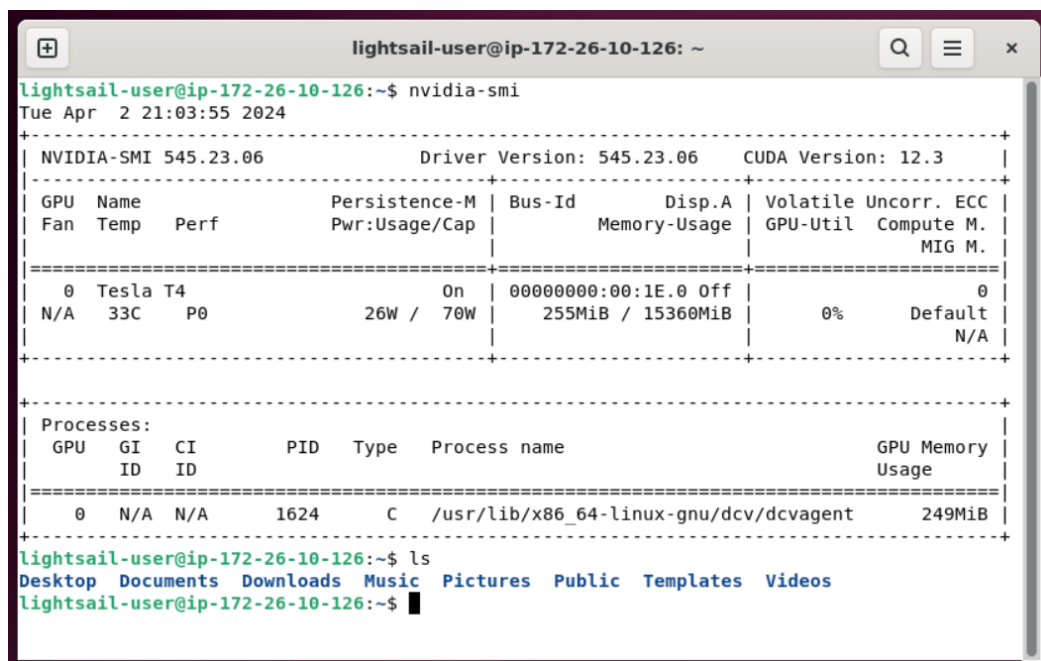
Run the following sanity checks in the terminal:

```
# Check GPU
$ nvidia-smi

# List directory contents
$ ls
```

Note: In Ubuntu, Copy/Paste commands are CTRL+SHIFT+C/V

You can expect outputs like the following:



```
lightsail-user@ip-172-26-10-126: ~
lightsail-user@ip-172-26-10-126:~$ nvidia-smi
Tue Apr  2 21:03:55 2024

+-----+
| NVIDIA-SMI 545.23.06                  Driver Version: 545.23.06    CUDA Version: 12.3     |
+-----+-----+
| GPU   Name                               Persistence-M   Bus-Id        Disp.A    Volatile Uncorr. ECC |
| Fan  Temp  Perf              Pwr:Usage/Cap     Memory-Usage   GPU-Util    Compute M. |
|               |                    |                      |               |
+-----+-----+
|  0  Tesla T4                                  On          00000000:00:1E:0  Off          0             |
|N/A   33C   P0               26W /  70W         255MiB / 15360MiB    0%          Default |
+-----+-----+

Processes:
+-----+-----+
| GPU   GI    CI          PID    Type    Process name                        GPU Memory |
| ID   ID    ID              |              | Usage   |
+-----+-----+
|  0   N/A   N/A         1624     C   /usr/lib/x86_64-linux-gnu/dcv/dcvagent  249MiB |
+-----+-----+

lightsail-user@ip-172-26-10-126:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
lightsail-user@ip-172-26-10-126:~$
```

Step 4: Configuring your IDE

The recommended IDE is VSCode. Refer to the installation instructions for Ubuntu here:

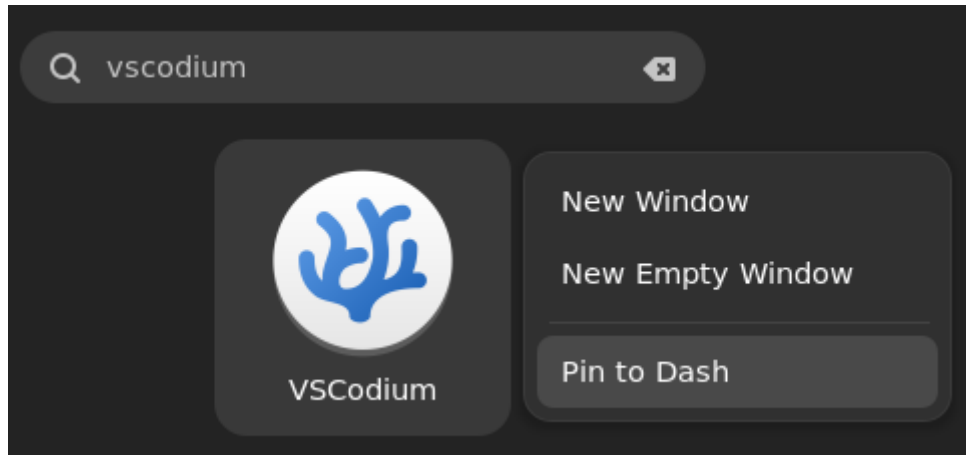
<https://vscode.com/#install-on-debian-ubuntu-deb-package>

```
# Add GPG key
$ wget -qO - https://gitlab.com/paulcarroty/vscode-deb-rpm-repo/raw/master/pub.gpg \
  | gpg --dearmor \
  | sudo dd of=/usr/share/keyrings/vscode-archive-keyring.gpg

# Add repo
$ echo 'deb [ signed-by=/usr/share/keyrings/vscode-archive-keyring.gpg ]
https://download.vscodium.com/debs vscodium main' \
  | sudo tee /etc/apt/sources.list.d/vscode.list

# Install
$ sudo apt update && sudo apt install codium
```

Activities > Search: VSCodeium > Pin to Dash

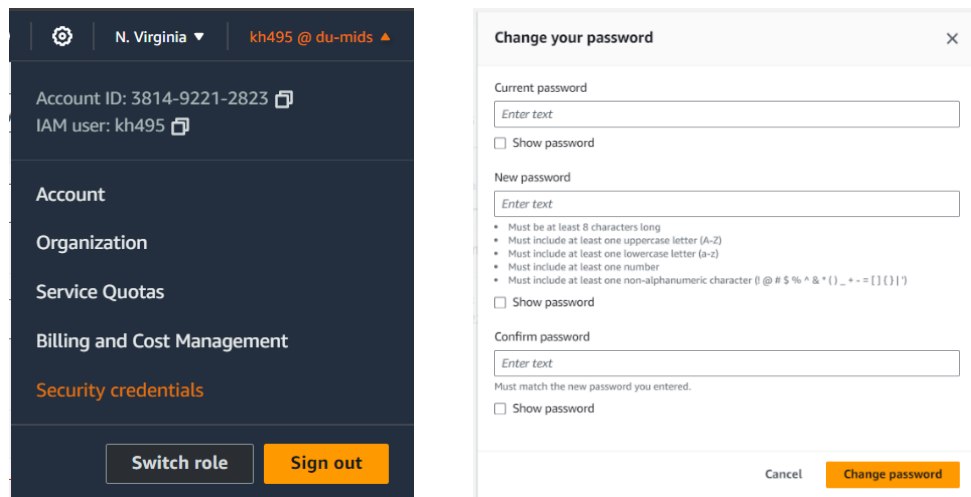


You're all setup and ready to use Amazon Lightsail for Research!

Password Management

If you forget your password, please contact your administrator.

To change your password: Account > Security Credentials > Update Console Password



SSH Access

If you'd like to access your machine over SSH, you can follow these steps.

Step 1: Request the key pair for your VM

Ask your administrator for the private key pair and download to your local machine.

From your local terminal execute the following commands

```
$ cd/path/to/dkp_rsa

# Move key file
$ mv dkp_rsa ~/.ssh

# Set permissions
$ chmod 700 ~/.ssh
$ chmod 600 ~/.ssh/dkp_rsa
```

Step 2: Retrieve your public IP address

From your LFR instance dashboard > Start Computer > Copy Public IP address

NB: You may need to refresh the page once the VM is running to see the IP address.

[Lightsail for Research](#) > [Virtual computers](#) > test-gpu-xl

test-gpu-xl [Info](#)

Actions ▼

Stop computer



test-gpu-xl

Status

Running

Month to date cost estimate (USD)

\$1.00 [Info](#)

Public IP

18.221.15.172

Monthly usage estimate

0.42 hours

AWS Region

US East (Ohio) [us-east-2]

Plan

GPU XL

Step 3: SSH into your VM

From your local terminal

```
# Open SSH tunnel
$ ssh -i ~/.ssh/dkp_rsa ubuntu@<YOUR_PUBLIC_IP>

# Accept fingerprint and run sanity check
ubuntu@ip$ nvidia-smi
```

IMPORTANT! The user entry point for SSH ('lightsail-user') and the GUI ('ubuntu') are not the same. To preserve a seamless machine state if switching between SSH and GUI it is recommended you operate within the 'lightsail-user' directory.

```
ubuntu@ip$ cd ../lightsail-user
ubuntu@ip$ ls
```