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

Step 2: Open your LFR VM Dashboard

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

Step 3: Launch your Virtual Computer

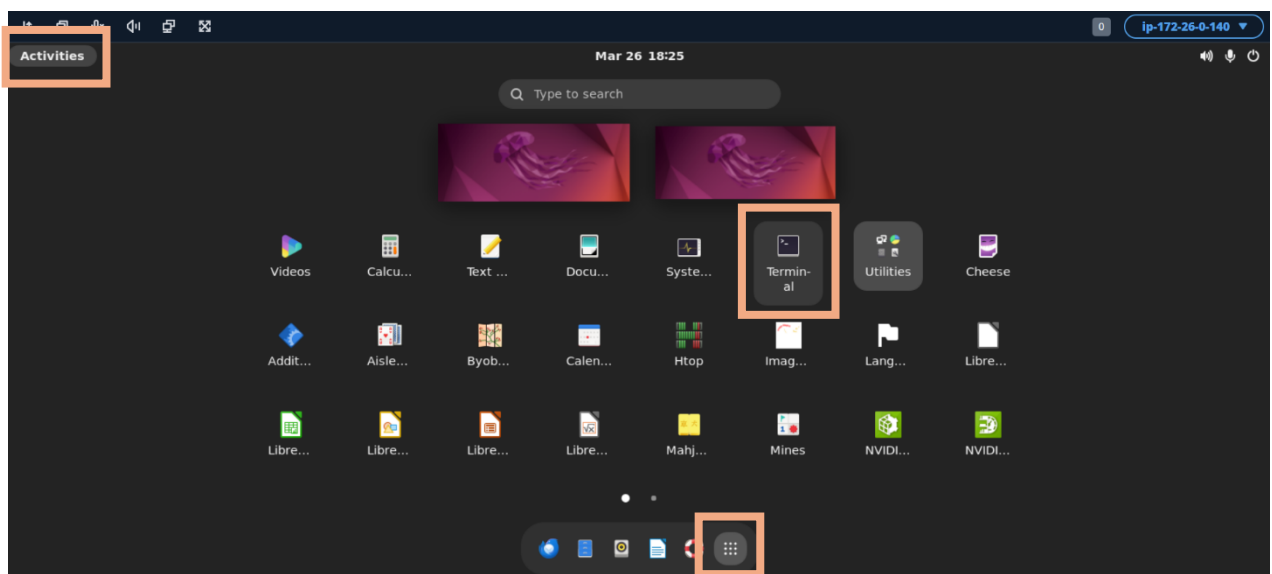Start Computer > Status: Running > Launch Ubuntu

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

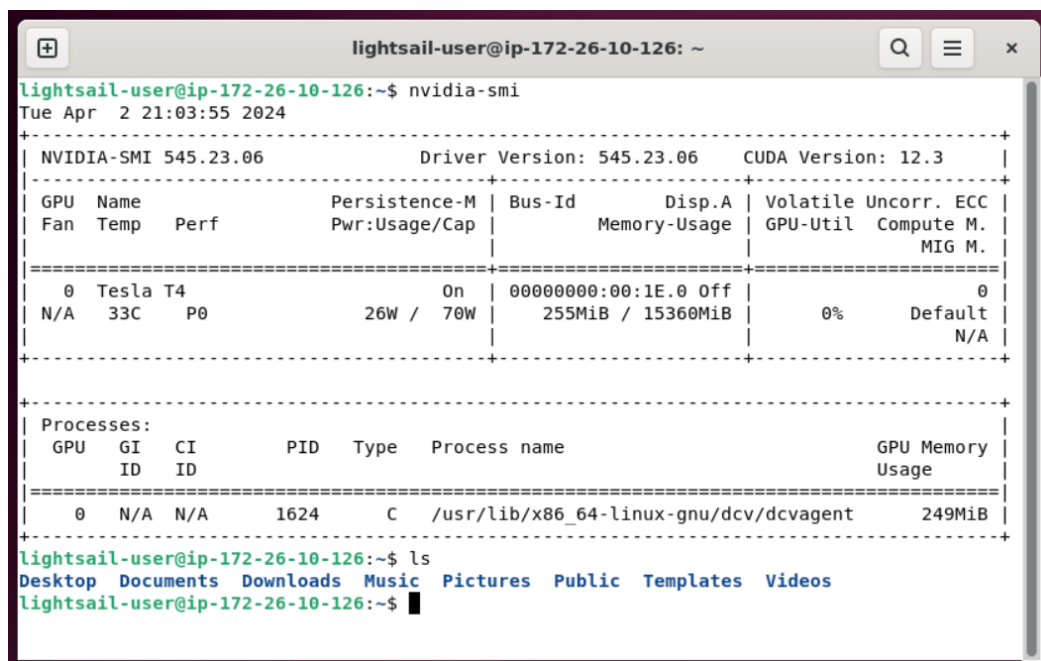**Note:** You can also use the Terminal launch shortcut: CTRL + ALT + T

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:

Step 4: Configuring your IDE

The recommended IDE is VSCodium. Refer to the installation instructions for Ubuntu here:
https://vscodium.com/#install-on-debian-ubuntu-deb-package

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

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

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

Activities > Search: VSCodium > Pin to Dash
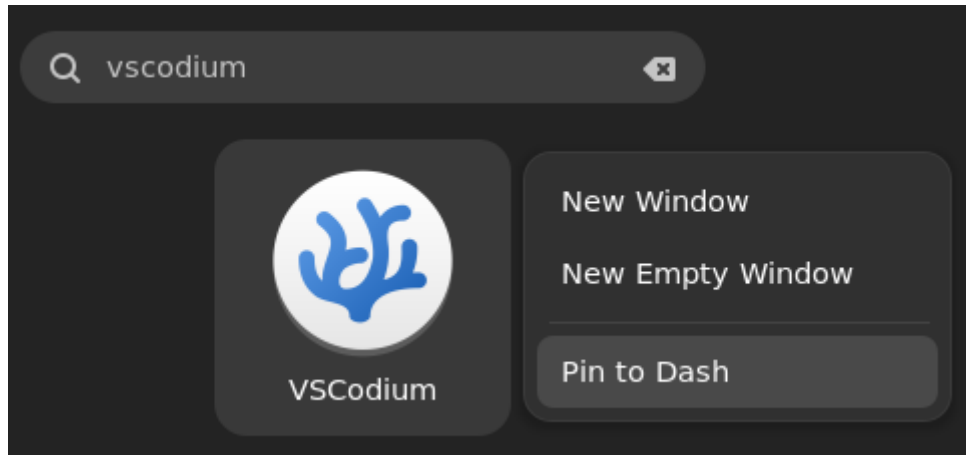
You're all setup and ready to use Amazon Lightsail for Research!

Password Management

If you forget your password, please contact your administrator.

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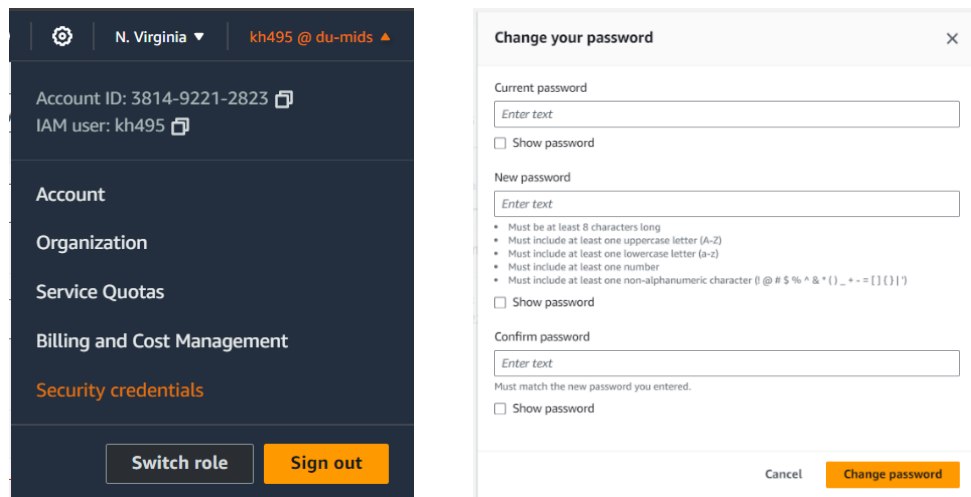
SSH Access

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	**Public IP** 18.221.15.172	**AWS Region** US East (Ohio) [us-east-2]
Month to date cost estimate (USD) $1.00 ⓘ	**Monthly usage estimate** 0.42 hours	**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
```