Miniforge + Conda Environments on Ubuntu: Student Setup Guide

Step 1: Download Miniforge

1. Go to: https://github.com/conda-forge/miniforge
2. Under 'Assets', download the file named:
   Miniforge3-Linux-x86_64.sh (most common for Ubuntu)
3. Save the file to your Downloads folder.

Step 2: Install Miniforge

1. Open a terminal.
2. Run the installer script:
   cd ~/Downloads
   bash Miniforge3-Linux-x86_64.sh
3. Follow the prompts:
   - Accept the license agreement
   - Confirm installation location (default is usually fine)
   - Choose to initialize Miniforge in your shell (recommended)

Step 3: Restart Terminal

1. Close and reopen your terminal
2. You should now see (base) in your prompt, indicating the base conda environment is active

Step 4: Create a New Conda Environment

1. Create a new environment with Python 3.11:
   conda create -n research python=3.11
2. Activate it:
   conda activate research

Step 5: Install Packages

1. With your environment active, install packages:
   conda install numpy pandas jupyterlab
   conda install -c conda-forge matplotlib scipy
   pip install seaborn

Step 6: Launch JupyterLab (Optional)

1. From the terminal inside your conda env:
   jupyter lab
2. This will open JupyterLab in your browser

Step 7: Managing Environments

• List all environments:
   conda env list
• Remove an environment:
   conda env remove -n research

Troubleshooting Tips

- If 'conda' is not found, ensure Miniforge added init to ~/.bashrc or ~/.zshrc
- You can add it manually by running:
  echo '. ~/miniforge3/etc/profile.d/conda.sh' >> ~/.bashrc
- To update conda itself:
  conda update conda
- To deactivate your environment:
  conda deactivate