# CSC401/2511 Assignment 1 teach.cs Intro

### CSC401/2511

September 2024

# 1 Working on the teach.cs Server

To ensure that your code works properly in the grading environment, we highly recommend you work on the teach.cs server directly, rather than setting up local environment on your own computer.

You can also write the code locally, but make sure to upload the code to the server to test periodically. We also provide a sanity check python file for you to test your code. However, working properly on this small test set doesn't necessarily mean your code is correct.

#### 1.1 teach.cs Account

Everyone registered in this course should have access to teach.cs account and teach.cs server. If you have not already done so, please get an account following the instructions here.

#### 1.2 SSH and VSCode Setup

VSCode provides an easy integration with SSH. You can follow the steps here to set up your VSCode to connect to teach.cs server. These steps mostly follow the official document here.

- 1. Install VSCode here if you haven't done so.
- 2. Install a supported open-ssh client following the instructions here according to your system. After the installation, make sure that typing ssh in your terminal gives the following output:

```
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface]
       [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
       [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
       [-i identity_file] [-J [user@]host[:port]] [-L address]
       [-1 login_name] [-m mac_spec] [-0 ctl_cmd] [-o option] [-p port]
       [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
       [-w local_tun[:remote_tun]] destination [command]
```

If not, restart your computer and try again.

- 3. Install the Remote-SSH extension for VSCode.
- 4. Open Command Palette (Ctrl+Shift+P or clicking on the top search bar and type in ">"), select Remote-SSH: Connect to Host...
- 5. In the new prompt, type in username@teach.cs.utoronto.ca. Press enter, type in your password and press enter again.
- 6. You might need to select the platform type for remote. Choose Linux.

7. Once you are connected, you can open any folder by clicking on **Open Folder** on the left panel, See Figure 1 for an example layout. The default folder is your root folder. You can select your A1 folder to get started.

🔀 File Edit Selection View Go Run Terminal He	elp Open Folder		o ×
EXPLORER     ····       NO FOLDER OPENED     Connected to remote.	We /h/u9/c4/00/c4niujin/  .cache .keras	OK Show Local	
You can clone a repository locally.	.rv .ssh .vscode-server teaching-csc401-w24-a1		
Colearn more about how to use Git and source control in VS Code read our docs.	Start         □	Walkthroughs <ul> <li>Learn the Fundamentals</li> <li>Get Started with WSL Updated</li> </ul> More	
> OUTLINE           > TIMELINE           ✓ SSH: teach.cs.utoronto.ca         ⊗ 0 ▲ 0         № 0		Show welcome page on startup	Ģ

Figure 1: Initial Layout

8. You can open the terminal by following the introduction here.

## 1.3 Retrieving and Running Starter Code

After you setup the SSH connection, the next step is to upload all starter code to the server, you can do so by simply dragging the files from your local computer to VS Code remote directory.

When you run the code, It is fine to see various warnings about NVML or DNN, because the basic teach.cs server doesn't have GPU support, and GPU is not needed for the assignment.

**Note:** You should not try to install any of the additional packages. Errors caused by version mismatch due to the installation of additional packages will receive zero marks on the relevant sections.