

Getting Started with CS 8: Using a Personal Computer

1 Preliminaries

- Download Python version 3.4.1. You can do this at <https://www.python.org/downloads/>. Do not download version 2.7.8.
- Create a College of Engineering account. You can do this at <https://accounts.engr.ucsb.edu/create>.
- Download Cyberduck. You can do this at <https://cyberduck.io>.
- If you have a Windows computer, download PuTTY. You can do this at <http://www.chiark.greenend.org.uk/~sgtatham/putty/>. If you do not have a Windows computer, do not worry about this.

2 Writing and Running a Program

Open IDLE. Once you download Python onto your computer, you will find it inside the Python 3.4 folder, wherever it was downloaded to (probably under your Applications folder).

In IDLE, go to **File** → **New File**. This will open up an untitled Python file. You can write your code into it, then save it as a file. It will have the extension `.py`, for Python.

With this `.py` file opened in IDLE, you can run the file by going to **Run** → **Run Module**, or just pressing **F5**.

3 Moving Your Files to and Connecting to CSIL

Once you're happy with your program and are ready to submit your work, you must first move your program (the `.py` file) from your personal computer to CSIL, the College of Engineering computers. From there you'll be able to use the `turnin` command.

First open Cyberduck. In Cyberduck, click **Open Connection**. The default value in the first drop-down will probably be FTP (File Transfer Protocol). Instead, select SFTP (SSH File Transfer Protocol). Where it says Server, type in `csil.cs.ucsb.edu`. Also type in your College of Engineering account username and password. Then click **Connect**. The first time you connect to CSIL, it will probably says something about an Unknown Fingerprint. This is okay, simply click **Allow**.

You will now see your files on CSIL. Under the **File** menu, you can make new folders, and upload files from your own computer onto CSIL. You can also click around the folders in the Cyberduck window, and drag and drop files between Cyberduck and your own computer. This is essentially dragging and dropping files between CSIL and your computer.

Upload your `.py` file to CSIL using Cyberduck. Remember which folder you put it under.

3.1 If You Have a Windows Computer

If you have a Windows computer, read this part.

Open PuTTY on your computer. Where it says Host Name (or IP Address), type in `csil.cs.ucsb.edu`. Then click **open**. A window will pop up, prompting you to enter log-in information. Type in your College of Engineering account username, then press enter. Next, you'll have to type in your password. Do this, then press enter.

If at any point it asks if you want to allow the connection, add a key, or something along those lines, be sure to allow this. Usually it'll say to type **yes** or the letter **y**.

If it worked, you'll see something like this:

```
Last login: Tue Oct  7 16:47:04 2014 from 169-231-96-247.wireless.ucsb.edu
13 September: *** ECI Labs Information ***
```

```
    All College and CS Instructional workstations
    are scheduled to be offline Sat 4am - Noon.
    We hope to have them online sooner though.
```

```
*****
```

```
Welcome to Computer Science's Remote Access server -- csil.cs.ucsb.edu
```

```
This is a shared resource.  You should run your graphical or process intensive programs on specific workstations.
```

```
[emilie@csil ~]$
```

You're now accessing CSIL remotely! You can now move on to **4 Navigating CSIL and Using turnin**.

3.2 If You have a Mac Computer

If you have a Mac computer, read this part.

Go to your Applications folder. Then find the Utilities folder. Open up the Terminal program. A window will pop-up and will have text similar to the following:

```
Last login: Tue Oct  7 20:07:37 on ttys000
Mew:~ emilie$
```

In the Terminal, type the following, but use your College of Engineering username where it says `<username>`:

```
ssh <username>@csil.cs.ucsb.edu
```

Then press the **return** key. You'll be prompted to enter your password. Enter your password, and press enter.

If at any point it asks if you want to allow the connection, add a key, or something along those lines, be sure to allow this. Usually it'll say to type **yes** or the letter **y**.

If it worked, you'll see something like this:

```
Last login: Tue Oct  7 16:47:04 2014 from 169-231-96-247.wireless.ucsb.edu
13 September: *** ECI Labs Information ***
```

All College and CS Instructional workstations
are scheduled to be offline Sat 4am - Noon.
We hope to have them online sooner though.

Welcome to Computer Science's Remote Access server -- csil.cs.ucsb.edu

This is a shared resource. You should run your graphical or process intensive programs on specific workstations.

[emilie@csil ~]\$

You're now accessing CSIL remotely! You can now move on to **4 Navigating CSIL and Using turnin**.

4 Navigating CSIL and Using turnin

Now that you're logged into CSIL, you can use UNIX commands to navigate your folders on CSIL remotely. The following URL has a list of popular commands: <http://mally.stanford.edu/~sr/computing/basic-unix.html>. You'll probably use the commands `ls`, `pwd`, and `cd` the most. Note that nothing will happen until you press the `return` key.

If you're ready to submit your project file, navigate to the folder that contains your `.py` file. For example, if I saved my file `pa01.py` in a folder called `cs8projects`, I would navigate to that folder.

Did you say you're ready to submit? There's actually one more thing that you should ALWAYS do before turning in your project. You should run your project on CSIL to make sure it did exactly what you wanted it to do. We will be grading them on CSIL, not your own computers, so it's always good to double check.

To run your project in CSIL, once you're in the correct folder, type `python3 pa01.py`.

Now we're ready to submit! To do so, type `turnin pa01@cs8 pa01.py`. (If you're working on the second project, change 01 to 02, and so on). Follow the instructions to complete your submission.

Congratulations! You have just submitted your programming assignment!