

# Installing Python

If Python is already installed on your system, you can skip to the next section.

## Step 1: Install Homebrew

Homebrew is the easiest way to install Python on macOS. If you already have Homebrew installed, skip this step.

Press Command+Space on your keyboard. This should open Spotlight and then type in Terminal and press enter.

Paste the following command into the terminal and press Enter:

```
/bin/bash -c "$(curl -fsSLhttps://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

## Step 2: Install Python via Homebrew

In the same terminal, paste the following command and press Enter:

```
brew install python
```

Run the command below to verify Python is installed correctly (This should display a version like Python 3.###.#) If nothing appears, try restarting your computer and running it again.

```
python3 --version
```

## Step 3: Upgrade pip

Paste the command below in the terminal and press Enter:

```
python3 -m pip install --upgrade pip
```

# Setting up Virtual Environment

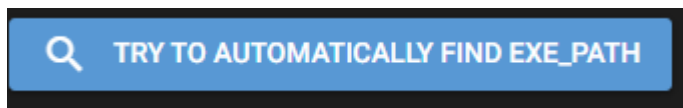
1. Download the zip file from Google Drive.
2. Extract the contents and save them to your Desktop.
3. In the terminal, paste the command below and press enter
4. Open the terminal and paste the following command below line by line and press enter.

```
cd ~/Desktop/aln-tool/aln-tool
```

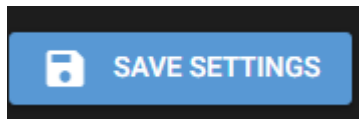
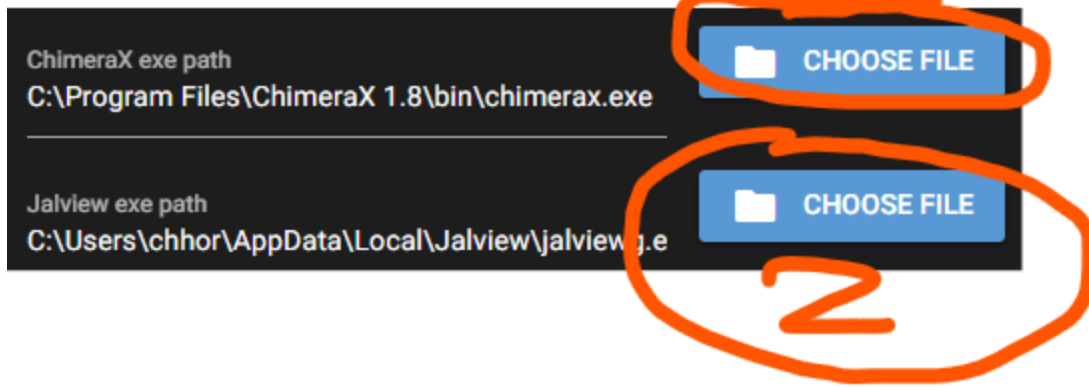
```
python3 -m venv seq-align  
source ./seq-align/bin/activate  
cd ./BinghamCanyon  
pip install -r requirements.txt  
python3 display.py
```

A desktop browser should appear.

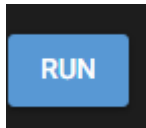
# Running the Tool



1. Press the Button:
  - a. You should see a green alert box saw that your path was set successfully.
    - i. If not and instead see a “Failed to Detect” alert, please press “Choose File” button which corresponds to 1 in the image below. You will be prompted with a file explorer, and select the folders below in this order (Note that specifically ChimeraX might be named differently in the applications folder such as ChimeraX-1.9-rc2024.12.03, so please choose the one you have): Applications ChimeraX- Contents MacOS ChimeraX. Do the same for button 2 navigating: Applications Jalview.app Contents MacOS JavaApplicationStub



2. Press the Button:



3. To run the button Press

- a. You should see a loading icon. This might take ~ 8 minutes, so please wait. You will know the tool is complete when jalview and ChimeraX opens and the loading icon is gone.

## Things to Note

1. After Changing any of the settings in Method Settings, please press Save Settings, or else the program won't use them.
2. Currently, only 1 job can be ran at a time
3. To restart the program, you can simple refresh the browser. To do a hard restart go to the terminal and press ctrl-c twice. Then run python3 display.py