

Technical Prerequisites for

“AI for Legal Research”

Pre-Conference Workshop at GLEA 2025, 2 July 2025

Participants in the workshop are expected to have gone through the following steps for setting themselves up to use Python and API access to OpenAI’s Large Language Models.

Specifically, you need to (1) install Python, (2) set up a development environment, (3) set up a virtual environment (recommended) and (4) obtain an OpenAI API key.

1. Installing Python

You will need to have a working Python installation on your device. The installation process differs slightly depending on whether you are on a Mac or Windows operating system. Below you can find a recommended installation guide for each.

a. Mac

We recommend [this guide](#) for Mac. The hyperlink places you in the middle of the website on purpose. You only need to execute two steps from there. In the first step (“macOS: How to Check or Get Python”), you will be guided on how to check whether you may already have a current version of Python installed. If the command the guide instructs you to execute returns any version lower than 3.9 or no version number at all, you should proceed with the next step on that website.¹

You can then ignore the section “Knowing the Python Installation Options on macOS” once you reach it and continue directly to the next section (“macOS: How to Install Python Using the Official Installer”). Once completing the steps there, you have installed Python on your device.

b. Windows

The page also provides [a guide for Windows](#); the same notes as above apply. You can ignore the blue ‘Note’ box regarding “pyenv” and the comprehensive guide on how to set up your system below it.

2. Setting up your development environment

Next, you will need an environment in which you write and run code in Python

¹ Otherwise, you already have a working Python installation and can jump to section 2 of this guide.

conveniently (a so-called “integrated development environment”, IDE). The most widely used IDE is [Visual Studio Code](#). It should automatically determine whether to offer you the Mac or Windows installer based on the device you access the website with and guide you through the installation process upon opening the downloaded file.

3. Setting up a virtual environment

Once you have installed Visual Studio code, it is good practice to set up a virtual environment for your project into which you install Python libraries like OpenAI (more on this in step 4). A guide on how to set up a virtual environment can be found [here](#). The guide includes commands for both Mac and Windows.²

Reasons for using a virtual environment as opposed to the base environment include security (as Python libraries downloaded from the internet remain isolated from other parts of your computer), organization (all the libraries used for any given project remain in that project’s virtual environment only) and ensuring that your project runs on the correct version of Python.

4. Getting an OpenAI API key

In order to access Large Language Models from OpenAI programmatically, you need a key that is sent along with all the requests you make to OpenAI (API key). Any request made using this key will be billed through your OpenAI account. First, you need to create an OpenAI key. For this, you first need to have an OpenAI account. To create one, navigate to [this page](#), click “Sign up” and go through the sign-up process. Once you have created your account, you will be met with a note titled “Developer quickstart” (see [here](#) if it should not come up) that guides you through all the steps required to send your first request to OpenAI. A few complementary notes on the guide:

a) The guide lets the user select the operating system (Mac or Windows) and programming language/command line tool used (JavaScript, Python, or cURL). Make sure to select your operating system and Python to receive the correct snippets and paste those snippets in your main.py file to see if everything works.

b) The guide provides a link to a [guide on .zshrc configuration files](#) to store environment variables.³ If you plan to program more in the future, reading this guide

² The video also shows how to create a first file (“main.py” in the example) that you can use to write and run Python code in. This is where you would place the Python code from the workshop. Note for clarity: The virtual environment created is only the “.venv” folder. The main.py file exists independently from the virtual environment, i.e. it could be run in any environment, also the base environment – even though this is not recommended.

³ The guide also links the Wikipedia page for environment variables, but it is not necessary to read it. It suffices to know that in software development, environment variables are used to store credentials like API keys because these keys are sensitive and must be kept secret. Most code written for collaboration or publication is eventually committed to a [version control](#) system (most commonly Git) for better organization. If an API key is accidentally

is time well spent. If you do not have the time to read it, you do not need to create a .zshrc file or any other file for now as long as you store your API key somewhere safe. Then, run the command from the guide in your Terminal (Mac)/Powershell (Windows) environment (the window at the bottom of VSCode that you already used to create the virtual environment).

committed to such a system, there is a risk it may be discovered by someone not authorized and exploited. Using an environment variable avoids this problem: the variable is set through a file on your device that is never committed to the version control system and is only loaded into your project locally. Thus, it is never at risk of being exposed publicly.