Forecasting and Nowcasting with Text as Data: Setup Guide

macOS and Windows

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Contents

Overview

This guide walks you through the software setup for the course **Forecasting and Nowcasting with Text as Data**.

We will use materials from the GitHub repository:

- BSE-ForecastNLP

Before the first session, please install:

- Python 3.11
- Git
- Visual Studio Code
- The VS Code extensions `Python`, `Pylance`, and `Jupyter`

Important note on Python 3.11

As of April 27, 2026, Python 3.11 is already in a legacy maintenance phase. The most practical installer-based version for this course is **Python 3.11.9**, which is the last Python 3.11 bugfix release with macOS and Windows installers on python.org.

- Direct macOS installer: python-3.11.9-macos11.pkg
- Direct Windows 64-bit installer: python-3.11.9-amd64.exe
- Archived Python 3.11.9 release notes (reference only): python.org/downloads/release/python-3119

Quick Checklist

Use this checklist if you are already comfortable with setup:

1. Install Python 3.11.9.
2. Install Git.
3. Install Visual Studio Code.
4. Install the VS Code extensions:
   - Python
   - Pylance
   - Jupyter
5. Clone the course repo:

```
git clone https://github.com/RenatoVassallo/BSE-ForecastNLP.git
cd BSE-ForecastNLP
```

6. Create and activate a virtual environment.
7. Install dependencies with `pip install -r requirements.txt`.

macOS Setup

1. Install Python 3.11.9

Use the direct official installer:

- macOS universal installer for Python 3.11.9

If you want background details, the archived release notes are here:

- Python 3.11.9 release notes

Then:

1. Open the downloaded installer package.
2. Follow the installation steps.
3. When the installation is complete, close and reopen Terminal.

Verify the installation:

```
python3.11 --version
```

Expected output should begin with:

```
Python 3.11
```

If the command is not found, restart Terminal and try again.

2. Install Git

Recommended official guidance:

- Git for macOS

The simplest option on macOS is usually:

```
xcode-select --install
```

This installs the Apple Command Line Tools, which include Git.

Verify:

```
git --version
```

3. Install Visual Studio Code

Official links:

- VS Code download page
- VS Code setup on macOS

Download the macOS build that matches your machine:

- Apple silicon
- Intel chip
- Universal

Then:

1. Open the downloaded `.dmg`.
2. Drag Visual Studio Code into `Applications`.
3. Open VS Code once so macOS registers it.

Optional but recommended: add the `code` command to your shell PATH.

The official macOS setup page explains this step.

4. Install the main VS Code extensions

Open VS Code, then go to the Extensions tab and install:

- Python
- Pylance
- Jupyter

These are the main extensions we will use in class.

5. Clone the course repository

Open Terminal and run:

```
git clone https://github.com/RenatoVassallo/BSE-ForecastNLP.git
cd BSE-ForecastNLP
```

6. Create and activate the virtual environment

Create the environment:

```
python3.11 -m venv .venv
```

Activate it:

```
source .venv/bin/activate
```

After activation, your prompt will usually show something like `(.venv)`.

7. Install the dependencies

```
pip install --upgrade pip
pip install -r requirements.txt
```

8. Open the project in VS Code

From inside the repository:

```
code .
```

Then select the interpreter inside `.venv` if VS Code does not pick it automatically.

Typical path on macOS:

```
.venv/bin/python
```

Windows Setup

1. Install Python 3.11.9

Use the direct official installer:

- Windows 64-bit installer for Python 3.11.9

If you want background details, the archived release notes are here:

- Python 3.11.9 release notes

During installation:

1. Start the installer.
2. Make sure the option to add Python to PATH is enabled if it is shown.
3. Finish the installation.

Open a new PowerShell window and verify:

```
py -3.11 --version
```

If needed, also try:

```
python --version
```

2. Install Git

Official link:

- Git for Windows

Download the latest x64 installer and follow the default installation steps.

Verify in PowerShell:

```
git --version
```

3. Install Visual Studio Code

Official links:

- VS Code download page
- VS Code setup on Windows

Recommended option:

- **User Installer x64**

After installation, open VS Code once.

4. Install the main VS Code extensions

In VS Code, install:

- Python
- Pylance
- Jupyter

5. Clone the course repository

Open **Git Bash** or **PowerShell** and run:

```
git clone https://github.com/RenatoVassallo/BSE-ForecastNLP.git
cd BSE-ForecastNLP
```

6. Create and activate the virtual environment

In PowerShell:

```
py -3.11 -m venv .venv
.\.venv\Scripts\activate
```

If you are using Git Bash instead:

```
python3.11 -m venv .venv
source .venv/Scripts/activate
```

7. Install the dependencies

```
python -m pip install --upgrade pip
pip install -r requirements.txt
```

8. Open the project in VS Code

From the repository folder:

```
code .
```

Then select the virtual-environment interpreter if VS Code does not detect it automatically.

Typical path on Windows:

```
.venv\Scripts\python.exe
```

One-Minute Sanity Check

Once the environment is active and dependencies are installed, test:

```
python --version
git --version
```

If those work, you are ready to start.

Troubleshooting

`python3.11` is not found

- On macOS, reopen Terminal after installation.
- On Windows, try `py -3.11 --version`.
- If Python is still missing, reinstall Python 3.11.9 from the official release page.

`git` is not found

- On macOS, run `xcode-select --install`.
- On Windows, reinstall Git from the official installer.

VS Code does not detect the virtual environment

In VS Code:

1. Open the Command Palette.
2. Search for `Python: Select Interpreter`.
3. Choose the Python executable inside `.venv`.

`pip install -r requirements.txt` fails

Try:

```
python -m pip install --upgrade pip
pip install -r requirements.txt
```

If the error persists, copy the full error message and bring it to class or send it in advance.

Official Links

- Course repository: github.com/RenatoVassallo/BSE-ForecastNLP
- Python 3.11.9 macOS installer: python-3.11.9-macos11.pkg
- Python 3.11.9 Windows installer: python-3.11.9-amd64.exe
- Python 3.11.9 archived release notes: python.org/downloads/release/python-3119
- VS Code download: code.visualstudio.com/download
- VS Code macOS setup: code.visualstudio.com/docs/setup/osx
- VS Code Windows setup: code.visualstudio.com/docs/setup/windows
- Git macOS install: git-scm.com/install/mac
- Git Windows install: git-scm.com/install/windows
- Python extension: marketplace.visualstudio.com/items?itemName=ms-python.python
- Pylance extension: marketplace.visualstudio.com/items?itemName=ms-python.vscode-pylance
- Jupyter extension: marketplace.visualstudio.com/items?itemName=ms-toolsai.jupyter