# Set-up: python, Git, VS

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**Want: python (language) running within visual studios (IDE) and linked to GitHub (version control)**

Install visual studios (VS) from firmaportal.

**VS + git**

* Set up link to GitHub. Follow [Introduction to Git in Visual Studio Code](https://code.visualstudio.com/docs/sourcecontrol/intro-to-git). Note: I was already logged into GitHub, so don’t know how it works if you’re not logged in.
* In the intro steps, I initialized a repo in a local folder. Note that to push to Git, you need something to push, so create a readme.txt file and push that
* Don’t know if VS does SSH—may just be pswrd protected.

**Python + VS**

* Install anaconda from firmaportal
* Open VS. Hit Ctrl + Shift + X. Install Python extension from dropdown menu (the one with 150 million+ downloads)
* I like to see the environment variables when I’m coding. This is possible in VS if we use Jupyter. Type #%% at the start of the script and you get the “python interactive window”. Click ‘Variables’ . Then you can switch back and forth between ‘Jupyter’ and ‘Terminal’.
* ‘python’ but not ‘py’ is recognized as a command;

**Python environments in VS**

* Check where python is on your computer. Type

import os, sys

os.path.dirname(sys.executable)

Into the terminal in VS.

* How to clear the terminal:
* >>> import os
* >>> clear = lambda: os.system('cls')
* >>> clear()

Get working directory:

import os

cwd = os.getcwd()

* open the Command Palette (Ctrl+Shift+P), search for the **Python: Create Environment** command, and select it.
* [Using Python Environments in Visual Studio Code](https://code.visualstudio.com/docs/python/environments)
* [python - Visual Studio Code does not detect Virtual Environments - Stack Overflow](https://stackoverflow.com/questions/66869413/visual-studio-code-does-not-detect-virtual-environments)

Modelleringsuke – kan jeg være borte i to dager?

Use cases? Are we predicting streamflow (time series)? Regionalizing summary statistics?

Technical specifics: language and coding environment? Version control?

Covariate selection

Model evaluation – predictions. Error metrics. Reliability.

Model visualization