

So this is how I got everything up and running. First of all, I am using *latexmk* from VS Code. Because of restrictions from PythonTex I am forced to either write the generated python files into the current directory so that *latexmk* finds them if the output directory is changed, or to keep the output directory for *latexmk* to the current directory, in which case the python files can be moved to a different directory. I find the latter case nicer, so I set the VS Code option to not generate the *latexmk* files in a different folder. This may have to be changed in the VS Code `settings.json`.

Then to utilize the build system from within VS Code and use *latexmk* correctly, I had to create the following `.latexmkrc` file. I only include this file in the current project directory, as I don't want this to be run, if I am not using PythonTex.

```
add_cus_dep('pytxcode', 'tex', 0, 'pythontex');
# PYTHON_PATH = /home/kai/miniconda3/envs/pythontex/bin/python
# TEX3_PATH = /usr/share/texlive/texmf-dist/scripts/pythontex/pythontex3.py
# To find PYTHON_TEX3_PATH: cat $(which pythontex3)
sub pythontex { return system("PYTHON_PATH PYTHON_TEX3_PATH
    --interpreter python:PYTHON_PATH \"$_[0]\""); }
```

Or on Windows I had to learn some pearl to get it up and running, as there were some problems with loading numpy from conda directly.

```
add_cus_dep('pytxcode', 'tex', 0, 'pythontex');
# TEX3_PATH = /usr/share/texlive/texmf-dist/scripts/pythontex/pythontex3.py
sub pythontex { return system("cmd", "/c", "conda activate CONDA_PYTHON \
    && python \"TEX3_PATH\" --interpreter python:python \"$_[0]\"") }
```

As one can see, I am hardcoding a lot. But the main reason for this is that I wanted to use an isolated python environment and I couldn't get it to work otherwise. But with this, the python environment is standalone and doesn't interfere with the main one.

I do like the functionality to create Python snippets in latex, and to do some integral math within a \LaTeX document, but I wanted to also print some matrices, with the ability to mutate them in a similar manner. For this I am also using the *pylatex* python package, which can create \LaTeX snippets for matrices, tables, and so on...

Python says "Hello!!"

$$8 \times 256 = 2048$$

$$M = \begin{bmatrix} 97.74 & 94.83 & 40.17 & 28.96 & 30.48 \\ 54.22 & 28.79 & 29.24 & 28.66 & 51.96 \\ 90.09 & 31.53 & 90.93 & 89.48 & 7.93 \\ 67.61 & 19.03 & 1.03 & 76.32 & 59.99 \end{bmatrix}$$