

Environment Setup

Language:

We recommend Python 3 via JupyterLab or Jupyter Notebook.

List of packages needed in addition to the standard Jupyter Notebook kernel:

Package	Installation Procedure	Used For
numpy	python -m pip install --user numpy scipy matplotlib ipython jupyter pandas	Efficient data structure for numerical framework
pandas		Data analysis
matplotlib		Produces high quality graphs
statsmodels (statistics package)	pip install -U statsmodels	Estimation of statistics models
sklearn (machine learning package)	pip install -U scikit-learn	Implementation of Machine learning models
os	[built in: standard library]	General Interface
warnings libraries are used for some technical issues	[built in: standard library]	
cvxpy	pip install cvxpy	Solves optimization problems
FactorModelLib	Import FactorModelLib	Library containing factor regression functions. Can be found https://github.com/bubblesort251/Factor-Model
error_analysis	Import error_anlysis	Library containing out of sample error analysis function Can be found https://github.com/bubblesort251/Factor-Model