

An all-in-one framework to support student Python fluency at GFI with Jupyter notebooks

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Despite the central role of programming in geophysics and the presence of Python activities throughout the bachelor curriculum at GFI, many students struggle with this aspect of their studies. These difficulties can occur for different reasons, and we propose to address at least two of them: the programming interface, and the user's first experiences with Python.

At this teachers breakfast session, we will introduce a framework allowing to write, interpret, and compile various programming languages, to safely store the files on a cloud, and to facilitate easy collaboration via version control and task management. We will then demonstrate how this framework could be useful for students at GFI by presenting a set of coding exercises aimed at introducing the Python language to beginners.

During the first part of the session we'll present the GitHub+Visual Studio Code environment, and discuss its strengths and advantages. In the second part we'll go through a selection of Jupyter Notebooks used in a seminar series training high school teachers in Python through a Ekte Data/Skolelaboratoriet collaboration. The presentation will be accompanied by real-time demonstrations and hands-on possibilities for the participants.