The idea behind my course will be to design it from the perspective of someone who wants to learn from scratch but also gain a thorough understanding of the material, that is not just the how, but also the WHY in a digestible fashion that does not delve too deeply into the math (when possible).

Course design:

Initial video(s) – This will be a video that explains to viewers what the course is about, what they can expect to learn by the end of it, and how the videos are structured. The other initial videos would cover environment set-up and getting acquainted with version control.

Structure:

Each video will go over a baseline task with pop-ups of side videos explaining in more detail certain topics or questions which are not answered in your usual intro videos.

The side videos can be longer than the actual lesson, but I will try to keep them self-contained or at least only referencing past side videos for clarification, and each pop-up will be in the form of a question on the video and display the length of the side video so students are aware of how much time is needed to go on a detour so that if they’re more concerned with covering the key task for the time being, they can do so and then go back when they have free time.

Each lesson will end with specific questions for knowledge review, and if there is time, I will add an assignment so that people can do hands-on learning.

The advantage to the pop-out system is that people can approach the lessons in whatever fashion they like, they can either cover the top level in order to know the bare essentials to get a task completed, or they can dive deeper into side videos to find out why things work the way they do.

Example**: Lesson on how to implement a predictive model with logistic regression in python!**

-Side videos – **Why sigmoid? What is an activation function?**

-Side videos – **Why gradient descent? What is a loss function? What other functions exist and what are their pros and cons?**

**-**Side videos – **What is fit and predict doing? How do we build logistic regression from scratch?**

In the above example, the core video would be ~10-15 minutes showing a hands-on approach to downloading a dataset, loading it onto the computer, examining the data, and then building a model with built-in lib functions. This is a very simple lesson and would provide little to no detail on what is happening behind the scenes, but that is where the responsibility would be on the student to explore side-videos to get a better grasp of what is going on with each task.