The request for guidance on career and experience in Data Science made by a colleague in the PyLadies Fortaleza group made me think about some things I could say to her about my professional experience and how I see the data area. Then, the manifestation of interest of other participants in the group for the same orientation encouraged me to produce this text that can work as a guide for paths to be followed towards learning and deepening in the subjects of the area. I wrote especially for the Pyladies Fortaleza, but I do not rule out the possibility of serving other audiences. Initially, it would be a single text, but I chose to divide it into some parts so that the reading would not be too tiring. So, this is the first post in a series (when I post the others, I'll update with the links).

Having made the introduction, I want to start by indicating the first material that I consider pertinent: the Data Roadmap made by the program. The document was prepared with the list of subjects recommended for studies in the 3 main aspects of the data area: Analysis, Data Science and Engineering. I strongly recommend that you access and read it because in addition to being useful, it is a very beautiful document.

We know that one of the great revolutions of professions that deal with technology is that only with a computer or smartphone in hand is it possible to learn what is necessary to start in the job market. All the content described in the roadmap can be found in free courses, blogs and various videos on the internet. However, I always position myself as an encourager of formal education. If you can take an undergraduate degree, if you can pursue a graduate degree, or take a course that awards a degree or certificate, do it. Especially for minorities and minoritized majorities (blacks, indigenous people, women, LGBTQI+, people with disabilities, etc.), everything we have to use in our favor is never excessive. So, if you can do it, do it!

However, if you only have availability for free and online courses, here is a list of some interesting courses and training:

Data Science Academy (this one demands a little more janjas than the others);

IBM Data Science Professional Certificate (you only pay if you want the certificate);

IA Expert Academy (also has courses on Udemy for an affordable amount of janjas);

Fernando Amaral's courses on Udemy (prices are also affordable).

Books are the best sources for more solid learning, so if you have resourcefulness in English (if you don't, it's important that you look for this skill because even though the Portuguese language is the most beautiful in the world, English will help you a lot) you may find Introduction to Data Science (by authors Laura Igual and Santi Seguí) useful. Another book that is sure to pave the way is Data Science from Scratch (by author Joel Grus).

And to finish the first part of this guide, I advise you to download and read the State of Data 2022 survey report and thus better understand the profile of those who work with data in Brazil.