If I think back about the time I wrote my bachelors thesis, I am a bit ashamed.

If I need to summarize what I should have done differently, I think I can do most of it in a single word: communication.

For some reason, I was able to have to much and to little communication at the same time. At that time, I had an official supervisor, a proffessor who would have to read whatever I write, an direct supervisor and a helpful master student who sat in the same office as me.

From those 4 people, only the master student had any real experience in machine learning and so I learned a lot from him, but I also think I abused his helpfulness a bit.

Given the plentitude of help he, and my direct supervisor (Fabian) were ready to give me, it made asking them for help much much easier than actually solving problems myself and I think I could have a lot deeper understanding of things like bash and root, if I would not have had access to such wunderfully helpful people.

On the other hand, even though I think I had some nice communication with my official supervisor, I had neirly no communication with my proffessor.

Looking back, this is clearly a terrible idea, but at the time it seemed like he was not my supervisor, and that he was not very interrested in the people doing machine learning.

Not that I want to shift blame on him, but I remember the master student in my office also only talking to him once in the time I was there.

Also I think 4 supervisor for a lowly bachelor student is way to much (I think this was only because I also was the only bachelor student, which is quite uncommon for the RWTH, but my semester had a course lead by this group, and I later heard that the way this course was held scared of a couple people, but there were not many choices for doing machine learning back then).

The second thing is kind of weird: For choosing my masters thesis, the group I wanted to write at did not allow you to choose a topic, but wanted you to mark topics you were ready to write.

So me choosing machine learning was not entirely my choice and when I heard that I could do something with machine learning I was a little sad. Thinking that machine learning has to be similar to what I did in my bachelors thesis, I expected it to be quite boring.

If you compare both my theses, my bachelors one only contains really easy machine learning: Instead of using fancy graph algorithms, I only used dense layers.

Instead of trying to make something work, where you dont know how, I always know that using a quadratic dependency is not bad.

And finally, instead of working in anomaly detection, which is definitely not a solved problem, I worked only on regression tasks, which where already solved so good back then, that I could have just copied from the keras documentation.

This resulted in much of the time beeing spend optimizing hyperparameters, which is definitely useful, but can be easily optimized.

That beeing said, I think I gained a lot of insigth in how different parameters work, and have some good intuition on what you should tweak depending on your situation.

Also this does not mean, that I would be bored by a simple regression task in the future, since you can do a lot more advanced stuff, that I simply did not know about then.

It only means that I wont need 3 month for such a task anymore, or would get even better results if I would take this time.