Insights Report 224G - Jürgen

Collaborative software development

Bringing people of different technical backgrounds and work experiences together and having them create a new working culture and processes within days was a wild ride. Everything had to be made up on the go without much refining of best practices. This especially presented troubles in how we structured our architecture and managed our Github. Merge-Conflicts were a common problem. Also feature priorities and flow of information were challenging processes. In my next development team I will take a moment in the beginning to establish best practices which will be constantly refined, in order to allow for a smoother cooperative process.

The problem of too little data

In past data science projects the problem usually involved too much data that had to be sorted through and made sense of. In this case, we had a lack of documents that we could use for training purposes and even a bigger lack of domain knowledge to annotate the data. This causes all sorts of new problems and leads to a different kind of solution-thinking.

Systematic prompt engineering

Approaching prompting as an engineering challenge involves constructing a system that can collect data on its performance and the reasons behind errors. This entailed experimenting with GPT to enable it to provide reasoning for its actions, and monitoring the performance of different features by comparing them against a set benchmark.

Hierarchical prompting

The big learning from emulating Josh Paynes hierarchical prompting architecture was not how to have more accurate prompts, but the logical approach to splitting the prompt up into completely different elements for them to be stand-alone and to work on them separately.

Modular software development

Trying to unbundle the spaghetti code that is so easily written at the beginning, but so hard to maintain. Especially when parts of the code were written by several contributors with less-than-perfect documentation.

Overall

These 10 weeks brought lots of learnings, in technical, needfinding as well as in interpersonal experiences. I really enjoyed the fast pace of going through sprints and working in a field in which very little best practice exists.