Autumn 2024 – LP2

Course Assignments for Advanced Information Visualization and Applications 4DV806 – Autumn 2024

2nd assignment

Task 1 *Conceptual Design*

For the 2nd assignment you have to design a visualization tool for a multivariate data set of your choice.

Before you begin to design your visualization, find an interesting **multivariate data set** and think what would people like to do with it. **If you are a PhD student this should be related to your research.** If you are a MSc student, you should find a dataset that is interesting, large, and complex. The size and complexity of the dataset will be an important factor in your grade.

These are some examples of sites where you can find interesting data sets:

- https://archive.ics.uci.edu/
- https://huggingface.co/datasets
- https://datasetsearch.research.google.com/
- https://www.kaggle.com/datasets
- https://datahub.io/collections

Next, think about what would one want to know about this data set? What different kinds of specific information they could be interested in investigating? What domain-specific tasks would one like to perform with the data? Does it make sense to filter out uninteresting parts? Your visualization should help users in answering these questions. Therefore, you should think about what would be the most convenient visualization and interaction techniques to support those tasks.

You will first come up with a conceptual design, which means that **you are not supposed to implement the visualization at this point**, since you have to get approval if your conceptual design meets the requirements. A suggestion is to draw a visualization sketch and illustrate interaction ideas on a document (you can use any software tools you want for drawing it).

Submit a report with a description of your dataset (what it represents, what are its elements, its variables, etc.) and sketches of your visualization and an explanation about it. You should explain how the user will be able to perform tasks such as browsing, highlighting, comparison of two entries, etc. and how these actions will translate into the domain-specific questions that you determined for your project. Also include implementation details such as which language/platform you'll use.
