11.5.2017

Outline for THESIS PROPOSALS

# ABSTRACT

The proposal should have an abstract. It is one paragraph summarizing the proposal, especially the thesis goal and all the important concepts / buzz words.

Usually, the abstract is written last.

# Introduction (~1,5 page)

## Motivation

Provide motivation which is based as much on a real world use case as possible. If you can, make it vivid, colorful and interesting. Think about how you would explain it at a party, or to your parents and grandparents.

## Thesis Goal

What are you trying to accomplish? What is the problem which you are addressing? Or: What kind of approach or knowledge are you transferring from which domain to which other domain?

## Outline

# Background and Related WORK (längster TEIL)

Describe how other researchers have approached this problem so far, and if solutions have already been implemented, describe them here.

Make sure to **cover all the different areas of background** required to understand the thesis goal. E.g. describe your notion of privacy and privacy threats. If you are combining two or more approaches which have not been combined before, describe the background for each one.

The difference between the background and the related work is as follows: The background is anything which is required to understand the problem/goal. The related work is about how other researchers solved different, but related problems. I.e. for a thesis about vegetarian pizza, the background is pizza and vegetarianism, but the related work might be about other vegetarian backed goods, like vegetarian quiche or vegetarian lasagna.

# USE CASE AND Requirements (~3 pages)

First describe a use case in which your thesis goal is relevant. Instead of being very colorful like for the motivation, now focus more on the technical aspects of the use case.

Based on the background and related work, list the requirements for each of the areas which are important in relation to the use case and the thesis goal.

Usually it is a good idea to summarise the requirements in a **table.**

gto the requirements, and suggest which candidate could be the best fit.

# Conceptual Approach (1,5 page)

Now explain your approach for addressing the thesis goal in a high level and conceptual way. This approach should be based on the candidate which best fits the requirements according to the previous section. Usually it is a good idea to include at least one **high level diagram** here.

If you can already see high level challenges, please include them.

# Realisation / Implementation (1 page)

Provide a high level sketch of how you plan to implement your conceptual approach. Provide a short description of the most important technical details, e.g. which programming language will you use, which libraries are you planning to build on.

If you can already see implementation challenges, please include them.

# Evaluation (1/2 page)

Provide a short sketch of how you want to evaluate your implementation. How will you show that you achieved your thesis goal?

Provide the most important details: Which data set will you use? Which metrics are relevant for the thesis goal? Did you already identify an experiment design you could use with the data set?

# Timeline / Mile STones / PROJECT PLAN (1/2 to 1 page)

Provide a bullet list or a diagram (not necessarily a gant chart) to show the high level milestones, which you will work on, when your thesis is registered.

Show that you have a good idea of what remains to be done, and that you have a realistic plan of how to get there.

It is recommend to have two writing phases, one in the middle and one at the end. This makes receiving feedback already in the middle of the thesis more feasible.

# Proposal TALK

Your talk should include a summary of your proposal document which shows that you know what you are doing and are confident about it.

Focus more on the motivation and high level approach and less on the low level details of the problem.

Include at least one slide for each of the sections. Include more if it makes sense.

The time limit is 10 minutes for a bachelor proposal talk and 15 minutes for a master proposal talk. (The rule of thumb, is that usually people speak 2 minutes about a slide, unless they have specifically prepared/rehearsed to talk more or less about a specific slide.)

Put any very detailed or technical slides in the appendix, and use them to answer in depth questions.

Make sure to rehearse the talk once or twice. Even if it feels dumb to rehearse in an empty room, there is always a noticeable improvement. Also, your advisor usually notices when you have not been rehearsing.