Homework Project

You can form groups of up to 4 people. The goal is to give you a motivation and hands-on experience with statistical relational methods.
Kristian Kersting, Karl Stelzner

kersting@cs.tu-darmstadt.de, stelzner@cs.tu-darmstadt.de

To get an idea for graphical model tools, please consult the PIAZZA resource sections. But there are other tools out. Google for them. Google for projects people have already considered. Just be creative and enjoy the freedom you have here. But be also careful, freedom often means a lot of work. And yes, we know that you may not know much about statistical relational methods yet. This is part of the game. This way you generate questions and start to understand that you can master fields without supervision, very much like what happens later in your job. And also, you could use other approaches such as deep networks, as long as you can argue that they deal with probabilities. Just provide strong link to topics of the lecture.

1. Write a 1-2 page PDF proposal for a project. The proposal should be structured into three parts:

1. Motivation: What do you want to solve and why is this interesting?

2. Related Work: What does exists for this problem already? Have other people considered this or related problems already? Here you have to make use of literature references, which should be complete and clean (Authors, Venue, Year, Page Numbers, etc.)

3. Intended Solution: How do you want to solve the problem at hand? Which graphical model tool will you be using? Where do the data come from (if you use data)? Again, please make use of references. If you refer to web pages, please indicate the date of access.

Please clearly indicate the names of the members of the project.

2. Run the project. Try to come up with a solution. Compile a presentation of 5 minutes, which covers the three blocks of your proposal but now presents the results. Please do not

just present what you have done. See it as an "elevator pitch": You want to get trillions of billions of EUROS, but you have only 5 minutes to convince us to invest in your start-up.

Check the slides of the first lecture to see some ideas for projects.