



Linköping University

## Information regarding Master thesis projects in Statistics and Data Mining

### The program

The Master program in Statistics and Data Mining covers two years of full-time studies and has been running successfully since 2006 at the Department of Computer and Information Science, Linköping University. Courses in statistical data mining, clustering and association analysis, visualization and Bayesian learning constitute the core of the program. In addition, students can choose between a wide range of supplementary courses, such as computational statistics, database technologies, health statistics, bioinformatics, mathematical optimization, time series analysis, web programming and text mining.

After completing the program, the students will have both a broad knowledge of how to analyze large and/or complex data, how to predict new data and how to present the results in an informative way. In addition, they will gain specialized competence depending on the choice of supplementary courses.

Special concern in the program is given to the master project since this will be the final application of the student's learned skills to a real problem, typically in collaboration between partners from both industry and academia. It is therefore our aim to provide substantial support to our students so that they can find master projects that are mutually rewarding for themselves and their clients.

### The thesis project

The master thesis project is a course that lasts six months, and is documented as a scientific report describing the analysis performed on the data and the results achieved. The report is also presented orally at the university. The students have the possibilities to choose between projects offered by the program, but also to find suitable projects on their own. After agreement on appropriate project between the student and the course examiner, the student will be assigned a main supervisor at the department with experience from research in the proposed project area. The role of the main supervisor is to assist the student in solving the given problem and to control the quality of the work. It is also required that there will be contact person/assistant supervisor available at the collaborating company/organization during this time.

The aim of the course is to increase the student's ability to design a project, perform advanced analysis and report the results in a clear way. We emphasize that a successful thesis requires a clear problem definition and the necessary data to analyze the problem. The goal is that the master thesis, or a condensed version of it, should be of such a high quality that it could be considered for publication in scientific journals.

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