FDK3260 Information Visualization for Doctoral Students 7.5 credits

Informationsvisualisering för doktorander

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for FDK3260 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

All doctoral students in EECS who handle data and have basic programming skills are eligible.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The students will be able to:

1.Understand the Visualization pipeline applied to their own research data.

2.Use state-of-the-art visualization packages to meet their general visual analytics needs.

Course contents

The main content includes the visualization pipeline, collecting and processing data, mapping data into interactive visual structures including maps, graphs, trees, scatter plots, parallel coordinates, treemaps, chord diagrams, and evaluation the capacity of these visualizations to address specific analytic tasks from selected target users.

Disposition

The course will have 7 meetings over one academic period. Each meeting will be approximately 4 hours long. There will be reading assigned and discussed at each meeting. Students will develop and discuss one individual visualization project addressing their own data and needs and that of their communities of practice throughout the meetings and they will have a final oral presentation and in a written report.

Course literature

Mazza, R. (2009). Introduction to Information Visualization. London: Springer London.

Ware, C. (2013). Information visualization perception for design (3rd ed.,

Interactive Technologies). Amsterdam ; Boston: Elsevier/MK.

Chris N. (2012). Information Visualization, Handbook of Human Factors and Ergonomics. Digitally available at the KTH Library.

Plus selected papers focusing on the topics of the individual projects.

(Mazza, R. (2009). Introduction to Information Visualization. London: Springer London.

Ware, C. (2013). Information visualization perception for design (3rd ed.,

Interactive Technologies). Amsterdam ; Boston: Elsevier/MK.

Chris N. (2012). Information Visualization, Handbook of Human Factors and Ergonomics. Digitalt tillganglig via biblioteket pa KTH.

Plus andra aktuella forskningsartiklar som ar relevanta for deltagamas

forskningsdata och individuella project.)

Equipment

Personal computer, smart phone

Examination

- EXA1 - Examination, 7.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Students will be examined based on their participation during the meetings and on the quality of their projects as these are presented at various stages throughout the course.

Other requirements for final grade

A passing grade (P) is obtained through completing these criteria:

1.Active participation (80%) during the meetings, which includes reading and discussing the course literature.

2.Approved presentation (80%) and feedback of individual projects at different stages of development.

3.Approved final oral presentation of the individual project (15 minutes).

4.Approved written report of the individual project.

5.Peer-review comments to other projects in the course.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.