

CS 690I: Advanced Topics in Information Retrieval

Spring 2010

Instructor: Professor Luo Si

Course Description:

This course focuses on cutting-edge research topics in Information Retrieval and related applications. It covers recent research on subjects such as retrieval models for unstructured text data and semi-structured data, information filtering, recommendation systems, personalized information retrieval, federated search, multimedia information retrieval, private-preserved information retrieval, information extraction, cross-lingual text processing, biomedical literature mining, etc. These applications involve a combination of techniques of information retrieval, machine learning, natural language processing and data mining.

The course is a mixture of a seminar exploring current information retrieval research topics, and a semester-long project.

The seminar portion includes presentations of current research topics in information retrieval. One or two recent research papers are selected for each topic. The papers are presented in class, by the faculty or by a student, followed by discussion of the strengths, the weaknesses and any potential improvement.

The project portion is a semester-long research project. Students may choose any project suggested by the instructor or propose any related projects they are interested in, subject to instructor's approval. In class presentations will be arranged for the course projects.

Evaluation:

Students are evaluated by the presentation of selected research topics, a course project and course participation.

Prerequisite:

Reasonable knowledge in basic models/algorithms in information retrieval or machine learning.