Fall 2011

CS 499/699: Cloud Computing

Keke Chen
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CS499/699 - Cloud Computing

Instructor

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Course Description

This is an introductory course to cloud computing. In this course, we will explore a few aspects of cloud computing: distributed data crunching with MapReduce, cloud and datacenter filesystems, virtualization, cloud security&privacy, Amazon Web Services, and interactive web-based applications. Students are expected to finish several mini projects, read some papers, and take the final exam. Participation in the class discussion is strongly encouraged. Guest speakers might be invited for some particular topics. (3 Hours Lecture + 1 Hour lab).

Class meeting time: 4:10-5:25pm, TR
Classroom: Medical Sciences 129

Prerequisite:

CS400/600, CEG433/633 (Basic knowledge of data structures, algorithms, operating systems, and distributed computing)

Text Books and Materials

There is no textbook for this course. All materials will come from recently published papers and online documents. Please check some sample references at the end of this page.

Grading Policy

Mini projects	60%
Reading	10%
Final exam	20%
Class participation	10%

A[90-100] B[80-89] C[70-79] D[60-69] F[<60]. The instructor will curve the final grades based on the distribution of scores.

Covered Topics (tentative)

1. Introduction	1 class
2. Cloud and datacenter file systems	1 class
3. MapReduce programming	3~4 classes
4. Virtualization	1 classes
5. Amazon Web Services and Eucalyptus	2~3 classes
6. Interactive Web-based applications	1~2 classes
7. Security and Privacy issues	2 classes
8. Mini project discussion	2 classes
9. Advanced Research Topics	1~2 classes

These topics may be covered in different ordering.

Mini-projects

Several mini projects will be given. Students will get familiar with hadoop, map-reduce programming, AWS, and interactive applications in these projects.

References