Fall 2009

CS 499/699: Cloud Computing

Keke Chen
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CS499/699 - Cloud Computing

Instructor

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office hours: 2-3:30pm T Th

Course Description

In this course, we will explore a few aspects of cloud computing: distributed data crunching with MapReduce, cloud and datacenter filesystems, virtualization, security&privacy, Amazon Web Services, and interactive web-based applications. Students are expected to finish a few 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: 12:20-1:35pm, T Th
Classroom: Joshi 365

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	2 classes
5. Security and Privacy issues	2 classes
6. Amazon Web Services and Eucalyptus	2~3 classes
7. Interactive Web-based applications	1~2 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 front-end interactive applications by doing these mini projects.

Reference