Course Syllabus

Schedule

- Monday 6:30-8:15, Wed 6:30-8:15
- No final exam, but final project demo (recorded) will be due during finals week.

Course description

The course will combine group reading and discussion of influential publications in cloud computing, some lectures by instructor and by invited speakers, independent review of talks coupled with classroom discussion, and a large project. The project will be done by teams of 3 to 5 students working with a mentor; depending on the project an industry leader and/or developer with a relevant project, or a senior graduate student or a postdoc working on a relevant research project. Projects may use the Mass Open Cloud or industry clouds (Amazon AWS, Microsoft AWS, Rackspace, etc)

The course will give students:

- Understanding of cloud computing at the laaS level in general, and Open Stack in particular
- An understanding of key Big Data platforms
- Understanding and experience with working as part of an agile team, with experience in running and participating in scrums, planning sessions, ...
- Extensive experience with github, agile tools, and various technologies specific to the projects students take on
- An artifact that they will have developed that, if successful, will be part of a broader initiative

Instructors

This fall the course will run simultaneously at Northeastern and at Boston University, and will be taught by the course team at both campuses. Instructors are:

- Prof. Orran Krieger, Boston University
- Prof. Peter Desnoyers, Northeastern University, 334 West Village H

- Michael Daitzman, Boston University (agile methods, etc.)
- Dr. Ata Turk, State Street (ex-BU)

Workload

Each week we will be covering on average two research papers and one practitioner paper or other teaching material. You will be expected to read and review some number of these papers (see Grading, below), and to actively discuss those papers in class. These papers will likely require that you find and read additional material as necessary to ensure your comprehension. Do not underestimate the amount of work this can be. In addition the class project represents a significant time commitment. You will need to make steady progress during the semester, as a large portion of your project grade is based on in-class status reports you will give every 2 weeks.

Grading

Grading is based on (a) quizzes and discussions related to the assigned reading, and (b) team projects. In particular:

- 65%: Project Team members typically receive the same project grades, but individual grades may be scaled based on feedback we solicit from your mentor and teammates.
 - 5%: project description
 - 30%: bi-weekly project demo and status (5 x 6%)
 - 25%: final project result and report
 - 5%: project quizzes (checking if you listened to your classmates' presentations)
- 35%: Paper quizzes and Piazza discussion Brief quizzes on reading assignments will be open during first 5 minutes of class
 - PhD students: must complete all
 - MS students: must complete TBD (8?) out of 11?
 - Undergrad: TBD (5)

There is no final exam.

Evaluation of the project will involve evaluation of your demo, poster, bi-weekly status reports, code reviews, and mentor and project partner reviews.