Fall 2013   Com S 610 Syllabus
Advanced Topics in Repository Analysis and Code Search

Class Meeting Time & Place: M: 2:10–3:30pm; 223 Atanasoff (subject to change)

Instructor:	Kathryn (Katie) Stolee
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Office:	209 Atanasoff, 2212 Coover
Office Hours:	by appointment
Homepage:	http://www.cs.iastate.edu/~kstolee/teaching.html

Credits: This seminar can be taken for 1 credit (pass/fail) or 3 credits (graded; requires instructor permission)

Course Topics: Source code repositories are becoming increasingly large and diverse, containing source code written for a variety of purposes and platforms. Current research seeks to understand source code repositories using varied approaches, such as measuring source code diversity, searching for source code to reuse, monitoring evolution, and finding faults. The main objective of this seminar is to provide an in-depth look at software engineering research in this area. We will focus on the following topics:

- Large-scale Repository Analysis
- Source Code Search
- Program Evolution
- Repository Analysis in End-User Software Engineering

Text: None. Research papers will be made available online. Check the course schedule, linked to from the course webpage, for details. (Side note: for those papers available on the ACM Digital Library, the text can be accessed and downloaded for free from the campus network)

Attendance: As this is a participation-based course, you are expected to attend class and participate in discussion.

Homework: You are expected to have read each paper thoughtfully prior to class and participate in any in-class exercises. You are also expected to write conference-style reviews for papers and lead the class discussion on those papers. Graduate students must do this for three papers, and undergraduates for one paper (subject to change based on enrollment).

Grading (1 credit hour): A passing grade is 70% or higher. The grades will be based on:
    50% participation
    50% paper reviews and discussion leading

Grading (3 credit hours): Grades will be based on:
    20% participation
    20% paper reviews and discussion leading
    60% project (50% project report, 10% presentation)

The following grade scale will be used:
    [100%, 90%] A; (90%, 80%] B; (80%, 70%] C; (70%, 60%] D; (60%, 0%] F

The project component of this course applies only to those enrolled for 3 credit hours. It involves undertaking a semester-long exploration of a topic relevant to software engineering with a focus on repository analysis and/or code search. It can involve proposing and implementing a new analysis or evaluating an existing technique from the literature on a new subject, and is subject to instructor approval. The project results are expected to be publishable in a reputable software engineering workshop, conference, or journal. The deliverable is a conference-style paper and a presentation to the class on the approach and results. A project proposal is due during the 5th week of classes (see course schedule). Project presentations will happen during class in Dead Week, and project reports are due at 12:00 noon on the Friday of Dead Week.

University Policies

Academic Dishonesty The class will follow Iowa State Universitys policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/academic/misconduct.html

Disability Accommodation Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact (instructor name) to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with (instructor name), you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu . Retroactive requests for accommodations will not be honored.

Dead Week This class follows the Iowa State University Dead Week policy as noted in section 10.6.4 of the Faculty Handbook http://www.provost.iastate.edu/resources/faculty-handbook.

Harassment and Discrimination Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity and Compliance at 515-294-7612.

Religious Accommodation If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

Contact Information If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.