CSC2231: Internet Systems

http://www.cs.toronto.edu/~stefan/courses/csc2231/05au

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What this class is about

- **A course in modern Internet systems**
  - Class discussion and paper summaries
  - Internet systems: a broad spectrum of interesting topics
    - Clusters, wide-area distributed systems (P2P), content distribution, Internet security, Web systems
- **A primer on Internet systems research**
  - Helps you read and review papers
  - Helps you understand how others evaluate your work
  - Helps you publish a piece of work

What your role in the class will be

- **You have four jobs this term**
  1. Read and synthesize 1 or 2 papers per class
     - Submit review two-hours before class
  2. Actively participate in class discussions
     - Come to class with questions and ideas
  3. Work on a research report
     - Write one (in pairs) and evaluate others
  4. Work on a research project
     - Leads to a publishable piece of work

What my role in the class will be

- **I also have a few jobs:**
  - Present the papers focusing on the take-away points
    - What's important vs. what's not
  - Participate in reviewing the research report
    - You are on your own for researching and writing
  - Help you with the project
    - Make sure you don't get stuck, keep making progress
    - Seek my help

Why you should take it

- **You'll learn a lot about Internet systems**
  - This is a clearly the direction in which our field is going
    - Over 50% of OSDI and SOSP papers
  - Fertile ground for research projects/Master's thesis
    - For your project, you can benefit a lot from my time and my effort in getting you started for a thesis
    - Any of the suggested projects can turn into a thesis
  - You'll be prepared to collaborate with sys/net researchers
  - Get first-hand experience on how others see your work

How to submit reviews

- **handout**
- **demo**

Research Report

- **Form pairs**
  - Deadline is on Thursday at noon!!!!
- **Choose a topic (create your own one)**
  - Deadline is next Monday at noon!!!!
- **Start early and have fun**
  - Don't serialize reading and writing; parallelize them
- **Submit report blindly to instructor <-- DUE in 1 MONTH**
  - Five two-column pages (see course web page)
- **Read other's reports and write-up reviews**
- **Grade: 50% based on others + 50% based on instructor**

Research Report Instructions

- **Describe fundamental problems in an area**
  - Constraints on practical systems
- **Rough timeline of the area**
  - Key results and developments
  - Rich playground for comparison of the approaches
- **Outline key research challenges**
  - You need to start to build this muscle

- **NO original research**

Research Project

- **Form groups**
  - Deadline is next Monday
- **Choose a project topic (create your own one)**
  - Deadline in two weeks
- **Create project Web page early next month**
  - Containing a “project proposal”
- **Submit progress report early November**
  - The goal is to make sure you’re on the right track
- **Presentation early December**
- **Final report**

Administrivia

- **Class times and location**
  - Mon and Thu 1pm -- 2pm in BA5256
- **Office hours**
  - ???
- **Grades**
  - Paper summaries 15%
  - Participation 10%
  - Report 25%
  - Project 50%

The topics…

Next class

- **Paper review**
  - A Case for NOW, Tom Anderson, David Culler, David Patterson, IEEE Micro, February 1995
  - Review due at 11am
- **E-mail research report teams**
  - Also due at 11am
- **Next class in Bahen room 5256!!!**