Introduction to Computational Advertising

ISM293
University of California, Santa Cruz
Spring 2009
Instructors: Ram Akella, Andrei Broder and Vanja Josifovski
(In alphabetical order by last name)
Instructor (In alphabetical order by last name)

- **Prof. Ram Akella**

  - Professor Information Systems and Technology Management at University Of California Santa Cruz
  - Ph.D., EECS, Indian Institute of Science, Bangalore, India, 1976-1982
  - B.S., EE, Indian Institute of Technology, Madras, India, 1971-1976
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Instructor (In alphabetical order by last name)

- **Dr. Andrei Broder**
  - Fellow and Vice President for Search & Computational Advertising in Yahoo! Research.
  - Chief Scientist of Yahoo’s Advertising Technology Group.
  - Research interests: computational advertising, web search, context-driven information supply, and randomized algorithms.
  - B. Sc. Summa cum Laude from Technion, M.Sc. and Ph.D. in Computer Science at Stanford University under Don Knuth.
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Instructor (In alphabetical order by last name)

- **Dr. Vanja Josifovski**
  - Principal Research Scientist at Yahoo! Research.
  - Research Area: Computational Advertising
  - Previously at IBM Research working on databases and enterprise search
  - M.Sc. from University of Florida, PhD from Linkopings University in Sweden.
  - vanjaj@yahoo-inc.com
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Contacts

- **Course Website:**
  - [www.soe.ucsc.edu/classes/ism293/Spring09/](www.soe.ucsc.edu/classes/ism293/Spring09/)

- **TAs:**
  - Bin An [ban@soe.ucsc.edu](mailto:ban@soe.ucsc.edu)
  - Chunye Wang [cwang@soe.ucsc.edu](mailto:cwang@soe.ucsc.edu)

- **Course Group Email:**
  - [Ism293-group@soe.ucsc.edu](mailto:ism293-group@soe.ucsc.edu)
  - Subscribing to ISM293-group email (enrolled students only) [http://www.soe.ucsc.edu/mailman/listinfo/ism293-group](http://www.soe.ucsc.edu/mailman/listinfo/ism293-group)

- **Lecture:** 6-9:30 PM Wed.

- **Office Hours:**
  - 5~6 PM Wednesdays, by appointment only!
  - Room: TBD

- **Please use the course group email to reach the instructors and TAs**
Lecture Content

1. Introduction and Overview
2. Information Retrieval for Computational Advertising
3. Marketplace Design
5-6. Sponsored Search
7. Content Match
8. Graphical Ads and Guaranteed Delivery
9. Behavioral Targeting
10. Overflow lecture: catch up, or optional topics:
   - Emerging Advertising Media or
   - Evaluation of Online Advertising system
General lecture structure

- Overview: 1~1.5 hours
- In depth: 1 hour
- Discussion: 20~30 Minutes
Bootcamp

- Bootcamp is twice per week, 5:00 to 6:00 PM Mon. and Wed. in order to help students fill in gaps, expand on some topics, & understand the course better. We initially want to cover Linear Algebra, the Lemur toolkit, and Elementary Statistics and Probability.
- Generally, TAs will lead the bootcamps.
- Prof. Ram Akella will lead some bootcamps as well.
Homework

- One homework per week
- Based on reading research paper, typically answer a question in the following style:
  - Why does the algorithms in the paper work?
  - Try to extend the idea in the paper from a different view of angle?
  - How to modify it for a new scenario?
- Some homeworks will be conventional exercise style.
There will be one course project divided into several mini projects. Examples:

- Crawling Ads, Indexing, and so on (TBD)
Exam

- Two quizzes or one midterm (TBD)
- One final exam
Grading

- Homework
  - 20%
- Exam
  - 40%
- Project
  - 40%
Thanks!