Introduction and Course Overview

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CS 7001
August 21, 2006

Course Logistics

- *Meeting times:* MWF 10-11am (CCB 101)
  - Monday & Wednesday: "Lectures"
  - Fridays: Group meetings of students by area

- Course web page: temporary location
  - http://www.cc.gatech.edu/~feamster/classes/CS7001-FA06/
  - Will find an official home shortly

- Course mailing list
  - Will be set up sometime today
  - Stay tuned

- Course wiki
  - Need volunteer

Goal: Skills for Doing Great Research

- Inspiration for open problems and big ideas

- Tools
  - time management
  - productivity and (selective) procrastination
  - how to **read** a research paper
  - how to **review** a research paper
  - how to **write** a research paper (technical writing)
  - how to **generate ideas**, sources of problems
  - information management (research notebooks, etc.)
  - how to give a **good talk**
  - how to write a **proposal**
  - how to be a **good TA**

Changes from Last Year

- No more mini-projects

- Instead:
  - Team projects by research areas
    - Multi-stage assignment
    - First assignment: this week
      - Topic: reading proceedings/selecting a problem

  - One big project with your RA advisor
    - Project writeup that can eventually become a conference paper

Student Groups: By Research Areas

Computing Science & Systems (CSS)
Alg, Combinatorics & Optimization: Robin Thomas
Architecture: Milos Prvulovic
Databases:
Networking: Nick Feamster
Programming Languages and Compilers: Olin Shivers
Security and Cryptography: Alexandra Boldyreva
Software Engineering: Alex Orso
Systems: Ling Liu
Theory: Eric Vigoda

Interactive & Intelligent Computing (IIC)
Cognitive Science: Ashok Goel
Human-Computer Interaction: John Stasko
AI: Charles Isbell
Graphics and Visualization: Greg Turk
Learning Science and Technology: Mark Guzdial
Robotics: Tucker Balch
Vision and Perception: Frank Dellaert

Computational Science and Engineering (CSE)

Today: Why Do You Want a Ph.D.?

- Introduce yourself
  - Name
  - Background
  - Research Interests
  - Why you want to get a Ph.D.

- Career goals?
  - Research university
  - Industry research lab
  - Teaching university
  - Startup
  - ???