

# CS210 – Project Experience With Corporate Partners

Jay Borenstein



**CS210** 2009  
Computer Science  
Innovation

# Reversing Roles – Push vs Pull

- Typically, we in academia drive collaboration
  - We reach into industry for collaboration on topics we are researching
- CS210 flips the model
  - You define the project theme, we develop it



# Departmental Perspective

- Further prepare our students to apply computer science in industry
  - More prepared means more productive in the work place from day one
- Challenge our students
  - To apply many of the skills they have developed in their CS studies
  - To build something substantial and real
  - To work collaboratively
- Stimulate the relationship with our corporate affiliates
  - Active engagement
    - Promotes awareness in our department of what areas of focus are most important to our corporate partners
    - Increases visibility and interest among our students



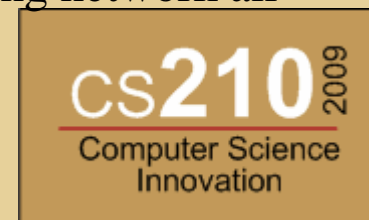
# Student Perspective

- It's Real!
  - “I get to work on projects from really cool companies”
- I have time to do something substantial
  - “Two quarter sequence is awesome”
- I'm the boss
  - (I don't know to be afraid of that yet)



# Corporate Perspective

- The obvious recruiting benefit
  - A great way to get to know the students on the project team
- The less obvious recruiting benefit
  - Visibility within the department and to our graduating students
  - Built-in talking points at career fairs and in interviews
    - “In CS210 we’re doing this really neat project with Sally and Bob...”
- Seeds awareness of key products with future tech leaders
- Spurs innovation within a company
  - *Challenge:* Many valuable conceptual (and sometimes practical) ideas live within corporate walls but never advance due to many factors
    - Limited personnel bandwidth, skills required are outside core competency of current staff, path to revenue cannot be justified internally (too risky), nobody is sure how to take first steps to get things rolling
  - *Solution:*
    - Tap into the creativity that uniquely exists – perhaps more so at Stanford than anywhere else – in academia
    - Leverage course structure and Stanford’s incredible supporting network all of which go toward creating a viable product outcome

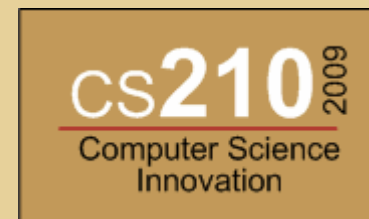


# How To Participate In CS210

- During the Summer and Fall, companies wishing to participate\* sign up to be part of CS210 which runs January to June
  - [borenstein@cs.stanford.edu](mailto:borenstein@cs.stanford.edu) or 650.776.6473
- Once a company has signed up, the teaching team helps corporate liaisons develop possible project themes. Past examples include:
  - “Make the Kodak ecosystem available to Gen Y”
  - “Utilize Azure Cloud Services to provide better climate modeling tools for environmental scientists”
  - “Propose additions to our API that would enable a class of enterprise customers to use our platform as their primary intranet”
- Special note: At least one project each year is for “social good”
  - E.g., John Gardner Center For Youth



\* A gift to the University is typically required



# CS210 Course Flow

- The first 15% of the course teaches students large-project necessities
  - Agile programming methodologies
  - Benchmarking
  - Rapid Prototyping
  - Group dynamics theory and practice
  - Advanced source control techniques
- The remainder of the course focuses creating a successful work product from the initial project theme
  1. An organic process for matching students to projects ensures motivation
    - One project per team for the duration of the course (6 months)
  2. Student teams meet with their liaisons to review project themes
  3. Student get down to the business of developing great software



# Key Corporate Touch Points

1. Project theme development
2. ~Feb 1
  - Project theme review with students (at Stanford)
3. Feb/Mar/Apr
  - Optional student team visit to corporate campus
4. ~March 15
  - Presentation at the one-third point by student team at corporate location
5. ~April 20<sup>th</sup>
  - “Contract of deliverables”
6. ~June 4<sup>th</sup>
  - Final auditorium presentation of work at Stanford
  - Demonstration of work at Stanford Software Faire







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# What's Your Project Theme?

[CS210.stanford.edu](http://CS210.stanford.edu)

Contact Jay Borenstein

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