Class Goals
- An individual project
- Oral communication skills
- Written communication skills

Oral Presentation
- 20-25 minutes long
- Two presentations this quarter
  - On a selected topic (5%)
  - On your project (10%)

Project Report
- 12 to 16 pages
- Two drafts this quarter
  - 1st draft (5%)
  - 2nd draft (10%)

Class Format
- Meet once a week on Friday
  - Presentations
  - Individual discussion
- Additional individual discussion during office hours or by appointment

Project
- Ideas
- Execution
- Evaluation
Project Ideas

◆ Something you enjoy doing
◆ Play to your strength
◆ Nontrivial, i.e. appropriate for 20 weeks of work
◆ CS related
  ▶ Software development
  ▶ Algorithm/theory development
◆ Approved by the instructor

Where Do Ideas Come From?

◆ Check out what other students have done
  ▶ http://cs.calstatela.edu/abet/cs491/index.html
◆ Personal projects
  ▶ Things related to your hobbies
  ▶ Things related to your future career
◆ Work related
  ▶ Make sure it’s an individual project

Where Do Ideas Come From?

◆ Talk to faculty
  ▶ Know the specialties of the faculty
  ▶ Especially good for graduate students
◆ Talk to other people
  ▶ Projects from other department or organizations
◆ Extend an old project
  ▶ Make sure there’s enough work for this course

Bad Project Ideas

◆ Not enough work for 20 weeks
  ▶ Bad for presentation and report as well
◆ IT related
  ▶ E.g. system administration, customer service and support
◆ Pure learning project
  ▶ This is not a learning course!

Tips for Project Execution

◆ Have a vision, as detailed as possible
◆ Make realistic plans
  ▶ Take into account your other workload
  ▶ Take into account your capabilities
◆ Leave time for evaluation and refinement

Tips for Project Execution

◆ Start implementation ASAP
  ▶ Find crucial implementation roadblocks early
◆ Work at a constant pace, i.e. don’t leave everything to the last two weeks
Tips for Project Execution

- Find and use the right tools
  - Libraries
  - IDEs
  - Version control systems
- Utilize other resources
  - School servers
  - Faculty knowledge
  - Discussion with fellow students

Tips for Project Execution

- Avoid pitfalls of “real-world” projects
  - Customer ignorance
  - Management constraints
  - Communication delay
- The Solutions:
  1. Don’t do it (as the class project)
  2. Figure out the situation early
  3. Do a “dual project”

Project Evaluation

- Originality
- Significance
- Complexity
- Polishness

A Successful Project

- Solve a problem or fulfill a need
- Showcases four years of your undergraduate study
- Resume builder
- Something to be proud of