Computer Science

- a fast moving, competitive field with
  - solid foundations
  - ubiquitous presence
  - profound impacts
  - ...

All made possible by (talented, hard working ...) individuals and teams, many through collaborations with practitioners in other fields

Computer Science

- Successful Practitioners in the field need to
  - be a life long learner
    - willing and able to continue to learn new materials
  - be well prepared
  - be able to work independently and collaboratively
  - have a strong sense of responsibility
    - Take ownership of their work and be responsible
  - Communicate effectively
  - Be creative
  - ...


Learning and Teaching Effectiveness

* One **important measure** for evaluating student learning and, indirectly, instructor teaching
  * Student grades
  * Time, Efforts ... needed for students to complete tasks
    * Some students are used to or prefer the following
      * What I learn in class
        → what I need to do assignments, without much extra study, efforts...
      * What I learn in class and what I do in assignments
        → what I need to do to prepare for the exams
    * Be mindful of the challenge levels of the tasks
  * **Student readiness, competitiveness for the future**

Talking about future

* Consider a job interview procedure, as an example:
  * Students submit their applications
  * Company picks students based on their applications
  * Picked students take web-based, timed test(s)
  * Students who passed the web tests get phone interviews
    * Behavior questions
    * Technical questions: students code while the interviewers observe
    * ...
  * Students who passed phone interviews
    → On-site interviews: normally 1 -- 2 days, some with technical sessions
    → Offers ...
Example Interview Question

- Not being able to solve the problem within time limit
- At this stage: okay, this is your 2nd CS class
- At the end of your CS study: troublesome

How to Become Prepared

- Study, study, study... and hold yourself to a high standard
- Your own goals, determinations and learning
  - Very important for your success
- CS121 and CS160:
  - Tougher courses, higher standards, stricter grading criteria...
  - More work for students and course staff
- These courses cover very important topics
- We believe that you can rise up to the challenges
Learning

* time, efforts
* problem solving
* deep thinking
* reflections
  * main ideas, innovative solutions...
  * challenging issues
  * generalization
  * connections
  * ...
  * ...

Learning

* Now let us review some of the problems that you have solved ...

* Remember
  * try to learn more from each problem
  * Doing assignments, reading books and sides ... is
    * Not about finishing the required tasks and being done with them
    * About your learning: ask yourself
      * what you have learned
      * How well you can solve similar problems in the future
      * How the ideas/techniques ... developed here are connected to others
      * How the ideas/techniques... be generalized, adapted
      * ...