

***Comp. Sci. Education
My Motivation
(and class philosophy)***

Arup Guha
dmarino@cs.ucf.edu
8/19/2013

Common Myths about Computer Science

- You need to have learned to program in high school in order to succeed in the major in college.
- You have to have an unusual knack for it to succeed.
- Computer Science = Computer Programming
- A university education's role is to teach you the specific programming languages, APIs and tools you will use in the job force.

The Truth about Computer Science

- Many students succeed and some even earn six-figure salaries at the age of 22 after writing their first computer program ever in COP 3223 at the age of 18.
- Students with slightly above-average quantitative skills who work hard (10-15 hours/week per class) almost always succeed in Computer Science courses.
- Many jobs exist for Computer Scientists outside of predominantly writing code.
- A university's job is to train you how to approach creative problems and give you the ability to learn new computing/programming tools/languages.



My Daughter Anya

Now that I have a daughter, I think about what I expect of her future teachers. I want to live up to those standards for my students, because I want to treat my students' parents the way I expect to be treated by my daughters' teachers.

The Truth About College and Hard Work

- In 1961, college students spent an average of 40 hours/week on work for class and 24 hours/week outside of class. (Is College Worth It? by Bill Bennet, How Children Succeed by Paul Tough)
- Today, college students spend roughly 27 hours/week on work for class with about 14 hours/week outside of class.
- Most of that gap (11 hours/week) has been filled with “leisure activities,” not work outside of school.
- Most of the lack of preparation for the work force can be attributed to the lack of hard work during college.

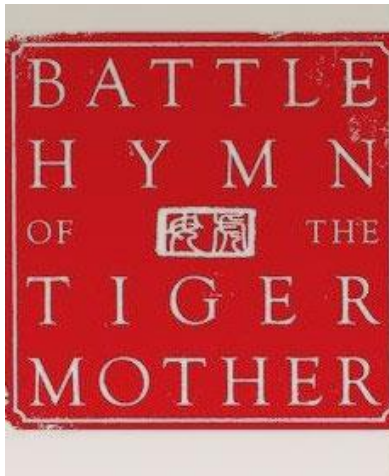
How I want my daughter treated and how I will treat you.

- I want to give my daughter the tools to succeed.
- I want her teachers to teach her how to work hard, how to be self-reliant and give her challenges that will improve her critical thinking and problem solving skills.
- I want her teachers to give her enough practice that she can get good at basic skills. (Think 40 math problems a night instead of 10.)
- I want her teachers to be tough with deadlines so that as an adult she isn't shocked by a world that doesn't coddle her or make exceptions for her.

In short, I will be your Tiger Mother!



An Asian Parent's Memoir Practice, Practice, Practice



Community Success

- I also want to promote the idea of community success.
- Working together, all students can learn more.
- I would like to try a wiki of online notes that (obviously) the entire class can edit.
- I may make changes to the syllabus involving groupwork if I think it will improve the average class performance.
- I want to create a community where everyone helps others because doing so is the right thing to do and because society as a whole benefits when everyone uses their strengths to help others.