Invite your friends to take CS10 next sem!

# The Beauty and Joy of Computing

Calendar?

Slip days

Lecture #25 Summary & Farewell



Lab tomorrow is Survey (0:20), online final (1:30) Register Iclicker, then turn in during lab or dis BJC Art or Poem Submit this at final for extra credit!



### **OCULUS RIFT, NEXT "IT"?**

Facebook's purchase of Oculus Rift is one indication that this is an incredibly HOT potential new technology. Gamers rejoice!

Discussion this week is important – course feedback + summary



oculusvr.com



### Administrivia: Become active!

#### With-Snap! Exam details

- No exam handed out unless you've filled in both HKN + our survey
- No "study sheets" needed / allowed since you have access to Snap!

#### Final Exam details

- Only bring pen{,cil}s, three 8.5"x11" handwritten sheets (writing on both sides).
- Leave backpacks, books, calculators, cells & pagers home!
- Everyone must take ALL of the final!
- Bring your "Beauty and Joy of Computing" Art/Poem for extra credit!

### If you did well in CS10 and want to be on staff?

- □ Usual path: Lab Assistant ⇒ Reader ⇒ TA
- Indicate on your final survey whether you're even remotely interested
- We strongly encourage anyone who gets an B or above in the class to follow this path...



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Garcia



## Taking advantage of Cal Opportunities

- "The Godfather answers all of life's questions"
  - Heard in "You've got Mail"
- Why are we one of the top Universities in the WORLD?
  - Research, research, research!
  - Whether you want to go to grad school or industry, you need someone to vouch for you!
    - ...as is the case with the Mob

#### Techniques

- Find out what you like, do lots of web research (read published papers), hit OH of Prof, show enthusiasm & initiative
- http://research.berkeley.edu/
- http://researchmatch.heroku.com/

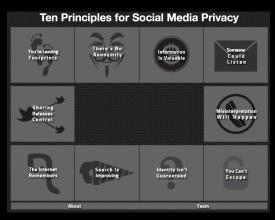




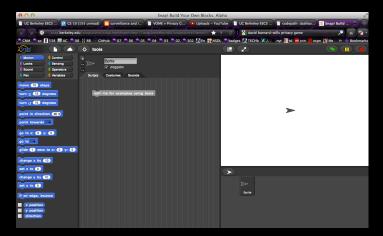


### Dan's Research Projects

Improve Privacy Teaching



Improve CS10/Snap!



We'll email class about opportunities this fall...







### **Opportunities Next Semester**

- CS61A (1st course in CS major)
  - Structure and Interpretation of Computer Programs, Python
- CS9 series (learn a second language)
  - I would recommend Python next, CS9H
- GamesCrafters DeCal (Game Theory R & D)
  - Develop SW, analysis on 2-person games of no chance.
     (e.g., go, chess, connect-4, nim, etc.)
  - Req: Game Theory / software Interest
- MS-DOS X DeCal (Mac Student Developers)
  - Learn to program Macintoshes.
  - Req: Interest. Owning a mac helps, not required.
- UCBUGG DeCal (Recreational Graphics)
  - Develop computer-generated images, animations.
  - Req: 3D interest

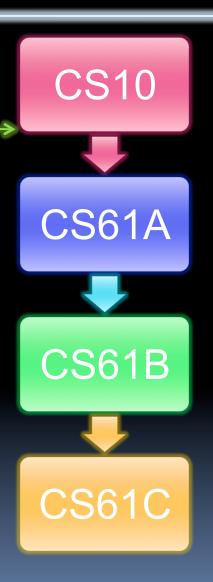






### Ok, I'm hooked! Where do I go next?

- CS Major / Minor
  - You are here
- CS61A
  - In Python, one big idea every week. Awesome!
- CS61B
  - In Java, data structures, algorithms and software engineering (lite)
- CS61C
  - In C and MIPS, Great ideas in computer architecture (parallelism) ... I teach this!









### Things to remember from CS10

#### Abstraction

- The key idea underpinning all computer science
- ...and (in CS10) functions, HOFs

#### ...From Blown to Bits

- Technology has social implications (privacy, energy, copyright, etc);
   try to see the big picture
- It also often has unintended consequences!
- Things are never black or white, pure good or pure evil

#### ...From Doug Rushkoff

- Coding as Engineering (desining, building, testing, iterating, etc)
- Coding as a Liberal Art (interface thoughts, hidden agendas, etc)
- Coding as Culture (can we have more read/write artifacts?)

#### You have learned to code!

Some don't believe blocks-based coding teaches this, they're wrong!









### Penultimate slide: Thanks to the staff!

(see the course website for listing & photos)







### The Future for Future Cal Alumni

### New Millennium

- Always-on internet connectivity + internet of things!
- Al & HCl breakthroughs
- Post-PC Era (power is in cloud, interface in pocket)

"The best way to predict the future is to invent it"

- Alan Kay

## The Future is up to you!



