

Invite your friends to take CS10 next sem!



CS10: The Beauty and Joy of Computing

**Lecture #25
Summary & Farewell**

2012-04-25

UC Berkeley EECS
Lecturer SOE
Dan Garcia

Lab this week is Survey (0:30), online final (1:20)

CS10 final party
Wednesday 6-8pm in the Woz!!!

GOOGLE GLASSES, NEXT "IT"?

Google's "Project Glass" hopes to bring all services from Android to a display you carry with you on your glasses. Next big thing?



Discussion this week is important – course feedback + summary

g.co/projectglass

Upcoming Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
04/22	04/23	04/24	04/25 Lec: Farewell + Surveys Lab: Feedback + Online Final	04/26 Lab: Feedback + Online Final	04/27 Lab: Survey + Online Final Discussion (Final Thoughts) Final Project Due @ 11:59pm	04/28
04/29	04/30 Final Project Due with slip @ 11:59pm	05/01	05/02 CS10 Party! 6-8pm (food) Woz Lounge in Soda (430 Soda)	05/03	05/04 Final Project Movies due @ 11:59pm	05/05
05/06 Review Session 6-9pm 2050 VLSB	05/07	05/08	05/09 Paper Final Exam 10 Evans 7-10pm			

RRR Week

Finals Week

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Administrivia: Become active!

- Online 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 BYOB
- Final Exam details**
 - Only bring pen/cils, three 8.5"x11" handwritten sheets (writing on both sides).
 - Leave backpacks, books, calculators, cells & pagers home!
 - Everyone must take ALL of the final!
- If you did well in CS10 and want to be on staff?**
 - Usual path: Lab Assistant \Rightarrow Reader \Rightarrow TA
 - LA: sign up w/Jenny Jones in 395 Soda before 1st week of semester
 - Reader/TA forms: www.cs/~julia/
 - I strongly encourage anyone who gets an A or above in the class to follow this path...

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Clickers were worth the time spent

- Strongly Agree
- Moderately agree
- Neutral
- Moderately disagree
- Strongly disagree



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Exciting Future Implications

- Need to revisit chronic unsolved problem**
 - Parallel programming!!
- Implications for applications:**
 - Computing power available >>> (choose your favorite supercomputer from a decade ago) on an economical die inside your watch, cell phone or PDA
 - On your body health monitoring
 - Google + library of congress on your PDA
- As devices continue to shrink...**
 - The need for great HCI (human-computer interfaces) is as critical as ever! (voice, gesture, etc)

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Taking advantage of Cal Opportunities

"The Godfather answers all of life's questions"
– Heard in "You've got Mail"

- Why were we the #2 Univ in the WORLD?**

So says the 2004 ranking from the "Times Higher Education Supplement"

 - 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/>**

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

- **CS Major / Minor**
 - You are here → CS10
- **CS61A**
 - In Python, one big idea every week. Awesome!
- **CS61B**
 - In Java, data structures, algorithms and software engineering (life)
- **CS61C**
 - In C and MIPS, Great ideas in computer architecture (parallelism)

CS10
CS61A
CS61B
CS61C

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Opportunities Fall 2012

- **CS61A (1st course in CS major)**
 - Structure and Interpretation of Computer Programs
- **CS9 series (learn a second language)**
 - I would recommend Python next, CS9H
- **GamesCrafters (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 / SW Interest
- **MS-DOS X (Mac Student Developers)**
 - Learn to program Macintoshes.
 - Req: Interest. Owning a mac helps, not required.
 - Taught as a DeCal by MS-DOS X veterans
- **UCBUGG (Recreational Graphics)**
 - Develop computer-generated images, animations.
 - Req: 3D interest
 - Taught as a DeCal by UCBUGG veterans

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Review: 5 components of any Computer

In the future, what'll be the most important computer component?

a) Control
b) Datapath
c) Memory
d) Input
e) Output

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Peer Instruction Opinion

▪ "Forget cloning. Forget TVs on your wrist watch. The biggest invention of the next 100 years will be the ability to directly connect your brain to a machine, aka wet computing." – Dan Garcia

- A macaque monkey at Duke University can already control a robotic arm with thought.
- DARPA interested for mind-control robots & flying
- Virtual Reality achieved with proper I/O interfacing...

Jose Carmena, UCB EECS Prof
Research: Brain-Machine Interface
www.eecs.berkeley.edu/~carmena/

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Penultimate slide: Thanks to the staff!

- **TAs**
 - ☕ Luke Segars
 - ☕ Navin Eluthesen
 - ☕ Yaniv "Rabbit" Assaf
 - Pierce Vollucci
 - Aijia Yan
 - Samir Makhani
- **Readers**
 - Shreya Lakhani-Pal
 - Kylan Nieh
 - Max Dougherty
 - Aatash Parikh
 - Christian Pedersen
 - Ian Birnam
- **Lab Assistants**
 - Joanna Abot
 - Carlos Asuncion
 - Michael Ball
 - Jose Battlando
 - Madeeha Ghori
 - Dylan Harris
 - Alysha Jivani
 - David Lau
 - Trace Levinson
 - Vivian Lo
 - Jennifer Ma
 - Mark Miyashita
 - Lauren Mock
 - Christian Pedersen
 - Emily Shlue
 - Peter Sujon
 - Kou Takahama
 - Minh Tran
 - Alice Wang
 - Ruoyang Wang

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The Future for Future Cal Alumni

- **What's The Future?**
- **New Millennium**
 - Ubiquitous & Quantum Computing, Nanotechnology, 10 M "volunteer" CPUs, the Parallel revolution...
 - Rapid Changes in Technology (e.g., voice input!)
 - World's .. Best Education
 - Never Give Up!

"The best way to predict the future is to invent it"
– Alan Kay

The Future is up to you!

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