Lecture 30: Conclusion

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August 11, 2016
Announcements

• Final Exam tomorrow (8/12) from 5–8pm in 155 Dwinelle
• Last part of AutoStyle EC study is due today
• Homework 12 out later today, due Saturday 8/13
  • End-of-semester survey, one more extra credit point!
Scheme Recursive Art Contest

http://art.cs61a.org/
Congratulations to everyone who participated in this semester's Scheme Recursive Art Contest!

Thank you to everyone who helped us decide the winners!
Featherweight (Third Place)

Mandelbrot Fractraction!!
Peilin Lu
13.1% of votes
Featherweight (Second Place)

Tail-recursive Gyarados
Leo Adberg and Amir Shahatit
13.4% of votes
Staring Eye
Renhua Liu
14.4% of votes
Heavyweight (Third Place)

Vigil for The Person Who Got -5 Points in CS61A
Xiaocheng Yang and Zeyana Musthafa
14.1% of votes
Heavyweight (Second Place)

EE/CS Master Trainers
Alex Bondarenko
28.4% of votes
Heavyweight (First Place)

Origin of Life
Yi Xu and Jianhui Li
30.0% of votes
Congratulations!
What is CS 61A?
CS 61A in one slide

- High-level ideas in computer science:
  - *Abstraction*: manage complexity by hiding the details
  - *Paradigms*: utilize different approaches to programming

- Master these ideas through implementation:
  - Learn the Python programming language (& others)
  - Complete large programming assignments

- A challenging course that will demand a lot from you
### Roadmap

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- This week (Introduction), the goals are:
  - To learn the fundamentals of programming
  - To become comfortable with Python
• This week (Functions), the goals are:
  • To understand the idea of functional abstraction
  • To study this idea through:
    • higher-order functions
    • recursion
    • orders of growth
This week (Data), the goals are:

- To continue our journey through abstraction with *data abstraction*
- To study useful data types we can construct with data abstraction
This short week (Mutability), the goals are:

- To explore the power of values that can mutate, or change
This week (Objects), the goals are:

- To learn the paradigm of object-oriented programming
- To study applications of, and problems that be solved using, OOP
This week (Interpretation), the goals are:

- To learn a new language, Scheme, in two days!
- To understand how interpreters work, using Scheme as an example
This week (Paradigms), the goals are:

- To study examples of paradigms that are very different from what we have seen so far
- To expand our definition of what counts as programming
This week (Applications), the goals are:

- To go beyond CS 61A and see examples of what comes next
- To wrap up CS 61A!
Life After CS 61A
Classes at Berkeley

• What you learn is much more important than your grade!

• CS 61B (Data Structures and Algorithms)
  • Taught by Professor Paul Hilfinger in Fall 2016

• Data Science 8 (Foundations of Data Science)
  • Taught by Professor Ani Adhikari in Fall 2016

• Other EECS lower division courses:
  • CS 70 (Discrete Mathematics and Probability Theory)
  • CS 61C (Machine Structures)
  • EE 16A/16B (Designing Information Devices and Systems)

• EECS upper division courses
Life Outside the Classroom

- Program for fun! Build things that you think are cool
  - Hackathons are a great place for this to happen
- Try an internship or join a research project
- Don't forget to do things that aren't CS-related!
Lab Assisting

• The best way to give back to the CS community
• Anyone who passes the course can be a lab assistant
• Develop greater mastery of course concepts
• Learn to describe technical concepts (great preparation for technical interviews!)
• The first step to joining the course staff as a tutor or teaching assistant

https://piazza.com/class/ipkfex1ne3p56y?cid=1682
Thank you!