

CS261 Data Structures

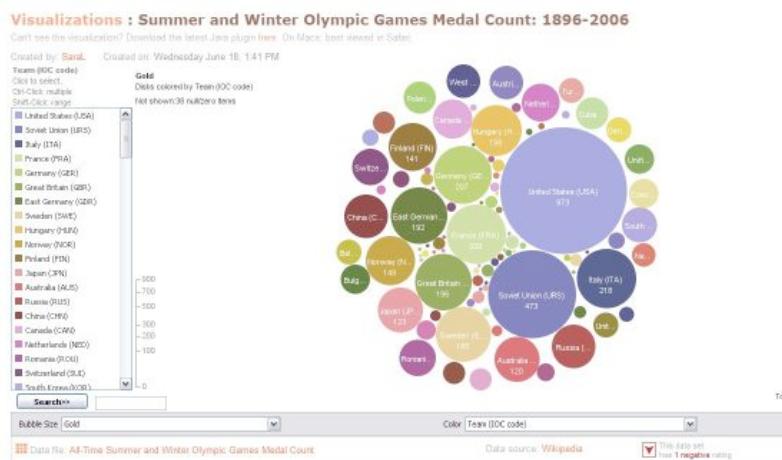
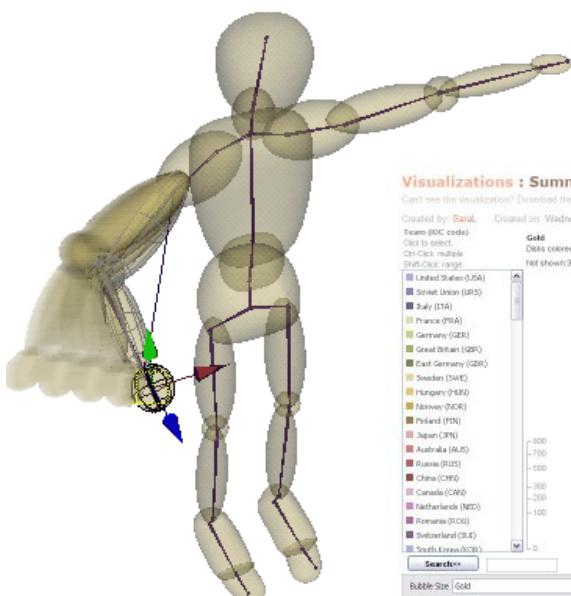
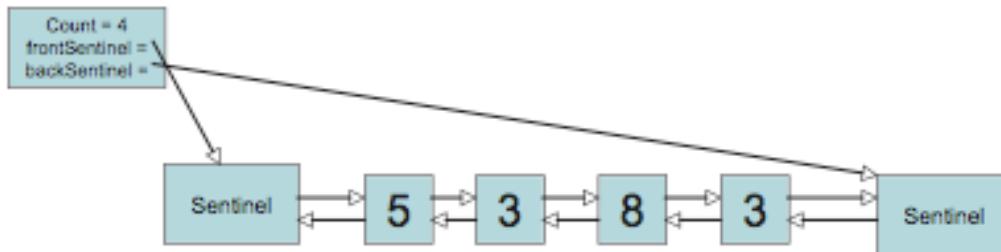
Course Introduction

Who Am I

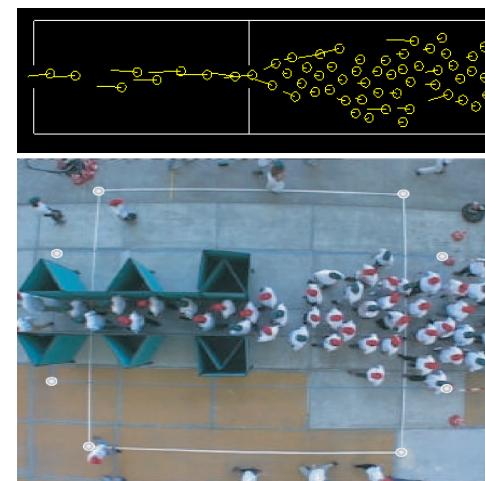
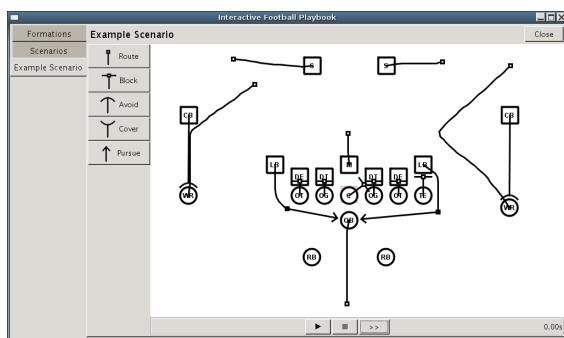
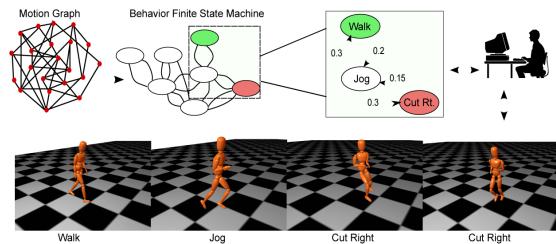
- Prof. Ron Metoyer
- Born and raised in Southern Cal
- UCLA undergrad B.S. (1994)
- Georgia Tech Grad Ph.D. (2001)
- OSU Assoc. Prof.



Teaching

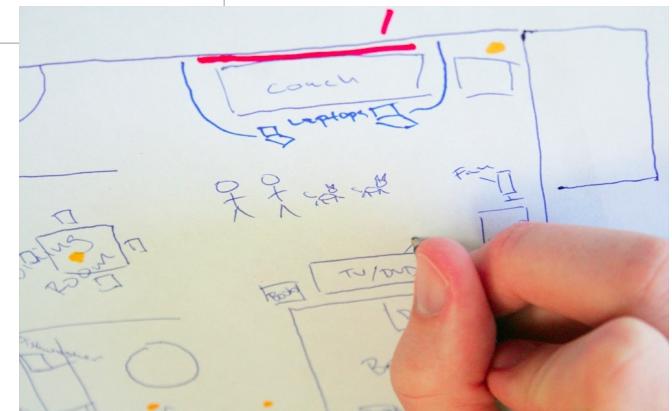
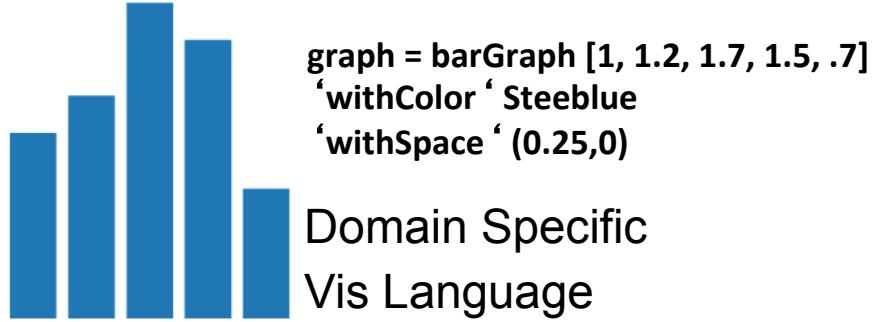
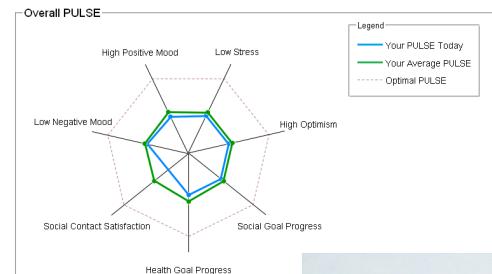
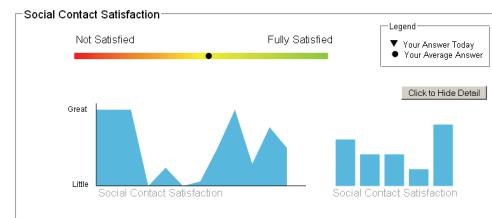


Research



Research

Visualizing Diversity in Large Multivariate Datasets



Consumption
 Awareness

Health
 Awareness

Family



Structure of the Course

- Short Lectures
- Weekly Reading
- Collaborative Worksheets
- 7 Assignments
- 1 Midterm
- 1 Final Exam
- Weekly Quizzes (Most likely on Fridays)
- See Class Website (Policies Section)
 - Percentage Weights
 - Grading Scale
 - Grading Policy and Late Assignments

Grading

- 30% Homework
- 20% Mini Quizzes
- 10% Class Participation, Recitation/Labs
- 20% Midterm
- 20% Final Exam

Academic Honesty

- Expected to produce and understand all aspects of your (and your team's) work
- Honor system

What if I need help on assignments?

- Piazza.com
 - Used for questions – we'll watch and answer questions
 - you can and should answer questions (Class Participation Credits!)
 - Can also post anonymously
- Office Hours
 - See website for location of TA Office Hours
 - Mine are held in my office

Office Hours Policy

- We will help you understand the assignments
- We won't give answers, but will guide you to your own answers
- We will only help you debug code if you can ***demonstrate confidence*** in supporting code
 - If function A calls function B, you must demonstrate that function B is behaving correctly (ie...demonstrate with a unit test case!!!)

Pair Programming

- Why?
 - Proven to enhance learning for both advanced and less experienced students
 - Nearly ALWAYS produces better code than a solitary programmer
- When?
 - Recitations/Labs
 - First two assignments
 - Must choose partner in your recitation
- See Handout
- [See Video](#)

Pair Programming Mechanics

- Driver
 - Controls keyboard and mouse
- Navigator
 - Observes
 - Asks Questions
 - Suggests Solutions
 - Considers long term strategies
- Switch roles every 20 minutes
- Fill out partner survey after each assignment

Handing in Programming Assignments

1. Make sure you have an ENGR account. If you don't go to
https://secure.engr.oregonstate.edu:8000/teach.php?type=want_auth
(and click on 'create a new account')
 1. Log in at the website above
 2. Click **Submit an Assignment**
 3. Choose the assignment from **List of Assignments**
 4. Browse for the files to submit
 5. Select the relevant file(s)
 6. Click **Submit**
 7. Verify successful submission
 8. *Sign up for a TA Demo*

Program Documentation Guidelines

1. Always identify yourself and the program at the top of the *main* file.

```
/*
   <your and partner's name>           <date>
   <assignment Identification>
   <development environment>
*/
```

2. Always identify yourself and the file contents at the top of other .h and .c files.

```
/*
   <your name>      <date>
   <file description>
*/
```

Program Documentation

3. Always provide a description for each procedure / function.

```
/*
    <function description>
    <preconditions>
    <postconditions>
*/
```

4. Always use self-documenting code.
5. Provide additional comments as needed. (Usually comment logical sections of code.)

Programming Assignments

- Must also be copied to your ENGR (or other OSU account) before the deadline.
- If you submit the wrong files via TEACH and you have not copied your project to your ENGR account (before the project deadline), you will not be given an opportunity to resubmit and you will get a zero for that assignment.
- We do NOT accept modification dates on personal computers as proof that the files were done on time.

Program Development

- You may use *any development environment* to write your code
- We will write our code in ‘C’ with the C99 standard
- I *highly* recommend that you become very familiar with a debugger and debugging strategies
 - Variables view
 - Expressions
 - Step over, into, out
- All assignments must compile (using gcc) and execute in the linux environment on flip.engr.oregonstate.edu

Assignments & Exams

- Contesting a Grade
 - one week after returned to you
- Late Assignments
 - Penalized at 10% per day for 2 days
 - After 2 days, zero for the assignment
- Exams
 - At least one week notice if you can't make an exam date
 - Makeup exams ONLY UNDER EXTREME CIRCUMSTANCES

- See the course website for more details
- <https://secure.engr.oregonstate.edu/classes/eecs/winter2014/cs261-001>

Why study data structures?



Google™

