



CS 225

Data Structures

January 14– Introduction

Wade Fagen-Ulmschneider, Craig Zilles



Introduction

Wade Fagen-Ulmschneider – CS PhD

Academic Interests: data discovery/visualization, systems programming, education worth sharing, and magic fairy dust

Craig Zilles – CS PhD (M.S. ECE, B.S./M.S. Mech E.)

Academic Interests: computer-assisted education, learning analytics, and computer architecture

Course Staff:

You:

Wade's Passion: Data Discovery

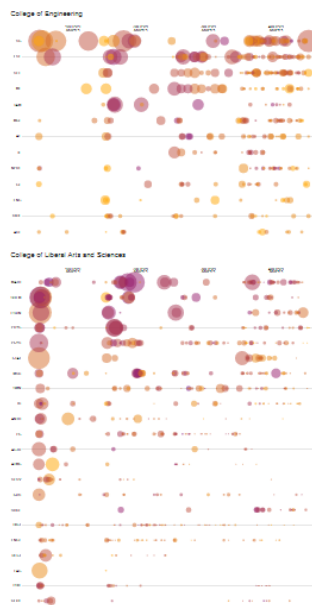
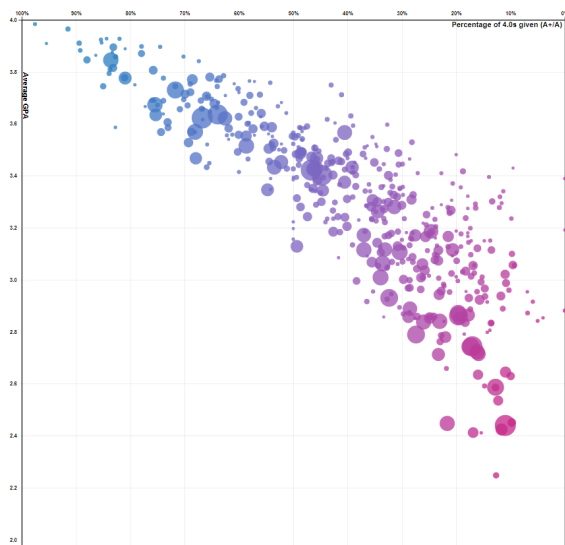
Wade Fagen-Ulmschneider
<http://waf.cs.illinois.edu/discovery/>

GPA's at Illinois:

MATH 221: Calculus I

Instructor	Students	Sections	Δσ	GPA
All Sections	3009	15		2.72
Validasht, J.	450	2	+0.26	3.00
Davidson, R.	224	1	+0.21	2.95
Anems, J.	736	4	+0.10	2.83
Guzman, R.	774	4	-0.03	2.69
Watts, J.	238	1	-0.09	2.63
Mortensen, K.	212	1	-0.11	2.61
McCarthy, R.	198	1	-0.31	2.39
Gilbert, R.	177	1	-0.62	2.05

Legend



Diversity at Illinois:

Department of Computer Science



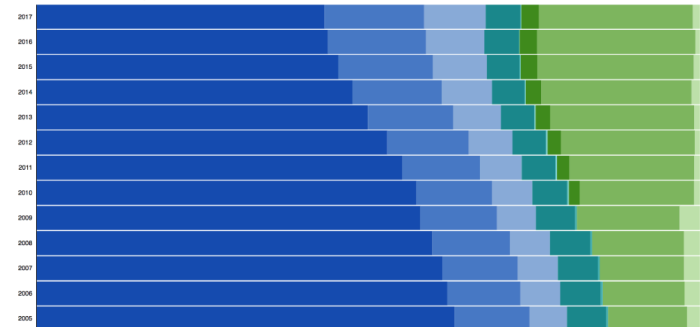
Legend

White Asian American Hispanic/Latino Black Native American Hawaiian/Pacific Islander Multiracial International Unknown

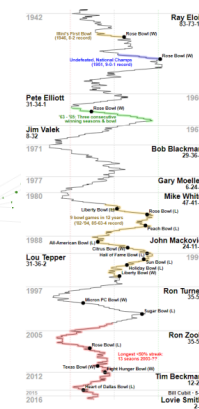
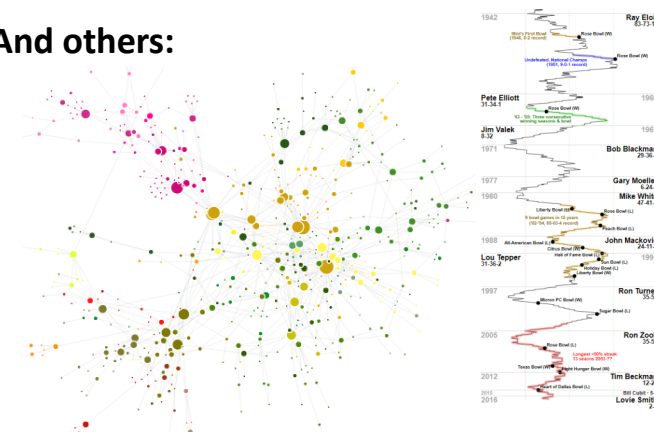
College of Engineering

Jump to 2010, 2016, 2019, 2014, 2015, 2012, 2011, or click on a department to view a single department.

Armeded Engineering
 Applied & Strategic Eng
 Biengineering
 Biomedical
 Biomechanical
 Civil Engineering
 Computer Engineering

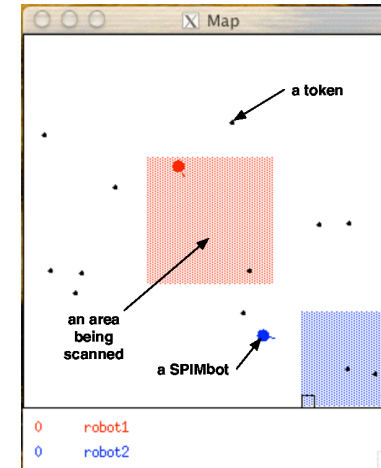
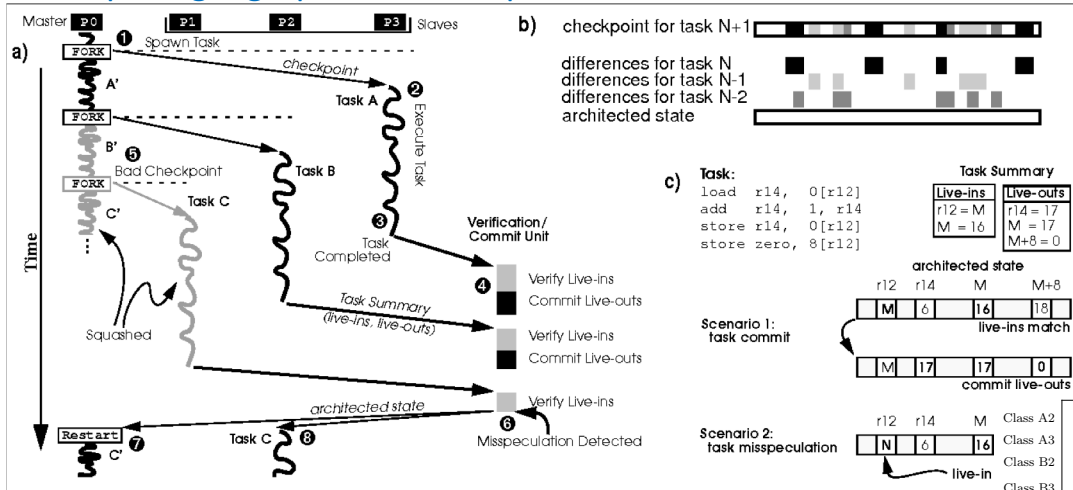


And others:



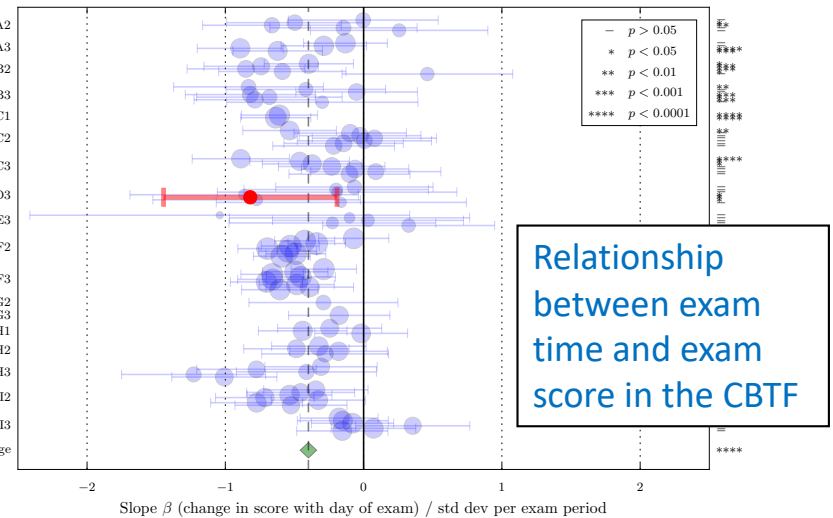
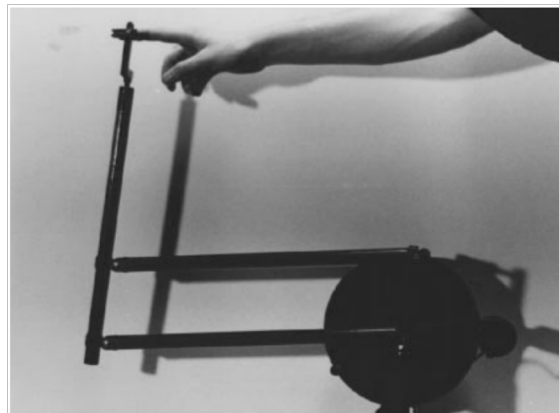
Craig thinks Wade has better pictures, but...

Proposing high-performance processor micro-architectures



SPIMbot
contest in
CS 233

Design and algorithms for
force-feedback human-
computer interfaces





Course Staff



You



Everything about CS 225

<https://courses.engr.illinois.edu/cs225/>

Information on:

Staff

Communications

Lab Sections

MPs

Exams


Grading

Academic Integrity



What is this course about?





ECE 220

CS 126

CS 125

INFO 490
(+others)

CS 225

CS 173

MATH 213



Variables in C++

```
int myFavoriteInt;
```

```
char grade = 'A';
```

```
double gamma = 0.653;
```

```
Cat fiona, mia;
```

```
Cube rubix;
```

```
Person wade;
```



Encapsulation




Encapsulation



Cube.h



Cube.cpp



```
1 #pragma once Cube.h
2
3 class Cube {
4     public:
5
6
7
8
9
10
11     private:
12
13
14 };
15
16
17
18
19
20
```

Cube.cpp

```
1 #include "Cube.h"
2
3 double Cube::getVolume() {
4
5
6 }
7
8
9
10
11
12
13
14
15
16
17
18
19
20
```

Cube.h

```
4 class Cube {
5     public:
6         double getVolume();
```