



CS 225

Data Structures

August 26 – Introduction

G Carl Evans



Introduction

G Carl Evans – CS PhD

Academic Interests: parallel and compilers, systems programming, education, and magic fairy dust

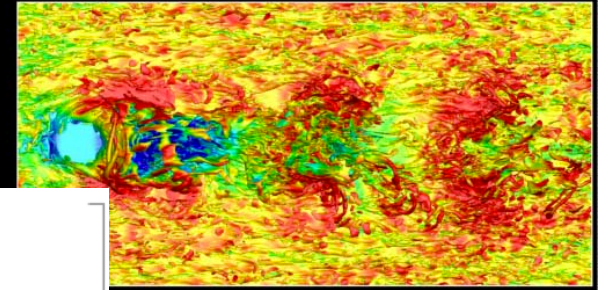
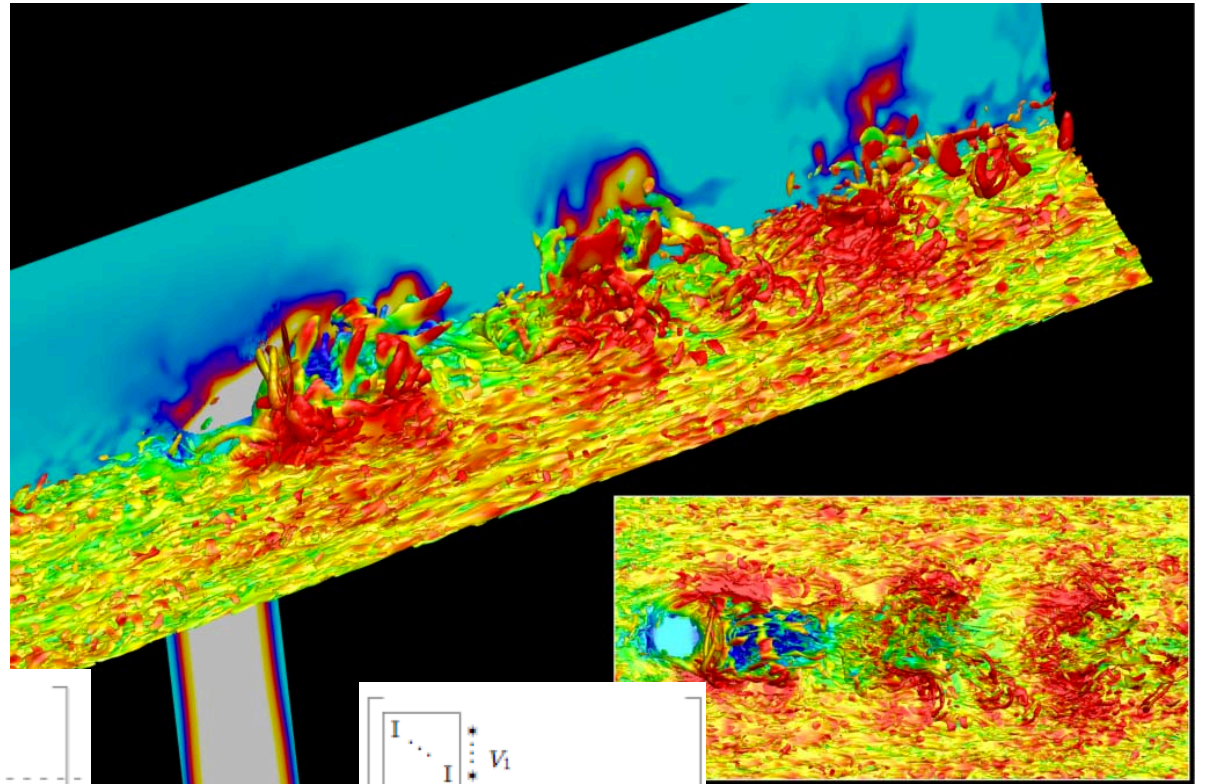
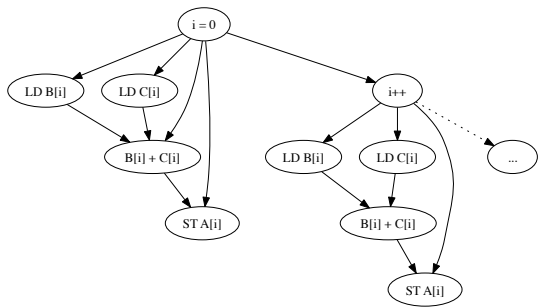
Mattox Beckman – CS PhD

Academic Interests: functional programming languages and computer assisted education.

Course Staff:

You:

G Carl Evans



$$\mathbf{A} = \begin{bmatrix}
 \boxed{A_1} & & & & \\
 & \boxed{B_1} & & & \\
 & \boxed{C_2} & \boxed{A_2} & & \\
 & & \boxed{B_2} & & \\
 & & \boxed{C_3} & \boxed{A_3} & \\
 & & & \boxed{B_3} & \\
 & & & \boxed{C_4} & \boxed{A_4}
 \end{bmatrix}$$



$$\begin{bmatrix}
 \boxed{I \dots I} & \vdots & & & \\
 & \boxed{I \dots I} & \vdots & & \\
 & \vdots & \boxed{I \dots I} & \vdots & \\
 & \vdots & \vdots & \boxed{I \dots I} & \vdots \\
 & \vdots & \vdots & \vdots & \boxed{I \dots I}
 \end{bmatrix}
 \begin{matrix}
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots
 \end{matrix}
 \begin{matrix}
 \boxed{V_1} \\
 \boxed{V_2} \\
 \boxed{V_3} \\
 \boxed{V_4} \\
 \vdots
 \end{matrix}$$




Mattox Beckman



Course Staff



You



ECE 220

CS 126

CS 125

INFO 490
(+others)

CS 225

CS 173

MATH 213



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?





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();
```