### CSE 441: Advanced HCI

User Interface Design, Prototyping, and Evaluation

**Course Overview** 

James Fogarty

**Daniel Epstein** 

King Xia

March 31, 2015



### **Class Logistics**

"Lecture": Tuesday 10:00-11:50am, MGH 284
Actually class meetings and presentations

"Lab": Thursday 10:00-11:50am, MGH 284 Actually scheduled group meetings with staff

#### **Class Website:**

http://www.cs.washington.edu/441

#### **Contact:**

cse441-instr@cs.washington.edu



# Understanding a Capstone

#### Traditional courses mix:

Lecture Assignments

Project Exam

Our role is to prepare and present structured material

### Capstone is entirely about your project:

Pitch Proposal

Milestones Presentation

**Documentation** Evaluation

Our role is to facilitate, critique, and advise in your independent work



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Waiting for the answer is the wrong approach

## **Projects**

#### Industry-Like Experience

Group of 3 or 4 students with mixed skills

You drive much of the direction and agenda

Report to and receive advice from course staff

### High-Fidelity Interactive Prototype

More than just a design, an interactive prototype

Mostly or entirely in software, due to constraints

Intended to be demanding, but fun and rewarding



## Benefits of this Approach

#### **Project Experience**

Learn to work on a project end-to-end

Project for your resume

Experiences and skills not in traditional courses

#### **Project Environment**

Demanding "CEO", "board", "manager", "investor"

Ill-defined requirements

Emphasis on exploration, iterative prototyping

Need for documentation, selling idea and results



#### **About Me**

#### James Fogarty

BS, Virginia Tech, 2000 PhD, Carnegie Mellon, 2006 Joined UW CSE, 2006



#### **Industrial Stints**

IBM, 2000 IBM Research, 2003 Microsoft Research, 2007



#### **About Me**

**Cross-Campus HCI Efforts** 

DUB MHCID



### Teaching

CSE 332: Data Structures

CSE 440: Introduction to HCI

CSE 441: Advanced HCI

CSE 510: Advanced Topics in HCI

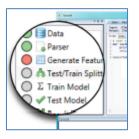
**CSEP 510: Human-Computer Interaction** 

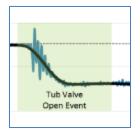


### About Me

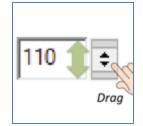


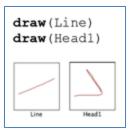


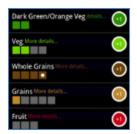


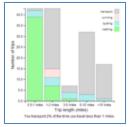




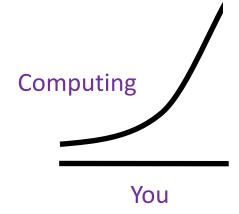










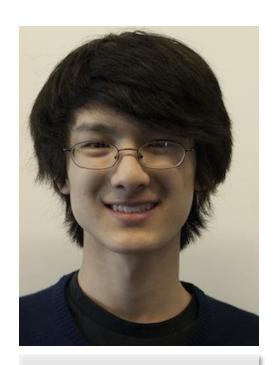




### **About Us**



**Daniel Epstein** 



King Xia

#### **About Your Classmates**

Name

Majors

Experience / Background

HCI / User Research / Design / Implementation

440 Project / Other Relevant Experience

**Relevant Skills** 

**Special Application Knowledge** 

**Desired Growth Opportunities** 



Write it down, then a few minutes to introduce

## Project Nature and Scope

"Students will propose, design, and develop a high-fidelity interactive prototype. The definition of "high-fidelity interactive prototype" will be negotiated with each group according to the nature of their project. For example, a group delivering a mobile application or website will be expected to provide a complete interactive experience. But the prototype of that experience might be unlikely to scale in a large deployment, or might be limited in some other regard."



### Project Nature and Scope

"It is appropriate, but not required, to choose to pitch proposals based on prior CSE 440 projects"

"We welcome proposals based on any idea that has previously been explored and developed at a similar level of depth. But the demands of this course are too high for starting from scratch. You need an initial high-quality understanding of your problem and directions for your design."



## **Project Evaluation**

#### Project scope

e.g., setting sufficiently ambitious milestones

### **Project results**

e.g., achieving milestones, employing appropriate methods to yield good results, deliverables

#### **Project commitment**

e.g., appropriate weekly reports, high effort, peer evaluation



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Combination of Peer and Staff Evaluation

## **Project Process**

#### Pitch Session on Tuesday April 7

Pairs of students pitch ideas (± 1 student as needed)
3 to 5 minutes, plus time for questions / discussion
Slides recommended, but this is still early

Sell us that it is an interesting, tractable project

Extensive feedback opportunities before then Tuesday / Wednesday bidding and team formation



### **Project Process**

### Proposal Session on Tuesday April 14

Teams present detailed proposal and milestones

5 to 10 minutes, plus time for questions / discussion

Slides required, idea and plan are clear

Present plan for an interesting, tractable project

Written proposal due based on feedback in class



### **Project Process**

#### Weekly Stand Ups or Presentations

Three milestone presentations

Formal presentation of progress

Three standups

Informal update

#### Maintained Project Website

Project info and documents

Weekly lab notebook updates

Document everything (e.g., pictures, videos, notes)



## Website Publishing

All website content submitted via GitHub

https://github.com/uwcse441/web-cse441-sp15

### Submit pull requests with your content

Keep your content with a project directory

Course website is a Jekyll site, but you probably should not attempt to integrate with it

Non-project pull requests done separately



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