

Cheng Fan

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EDUCATION

- **Indiana University, Bloomington — Master of Science in Human-Computer Interaction / Design** *May 2010*
GPA: 3.86/4.0
Departmental Scholarship for the 2009 ~ 2010 / 2008 ~ 2009 Academic Year *May 2009 / May 2008*
- **Tongji University, Shanghai — Bachelor of Engineering in Computer Science & Technology** *June 2008*
Overall GPA: 3.91/5.0 (top 16% among 164) Major GPA: 4.35/5.0
Excellent Student Scholarship for the 2006 ~ 2007 / 2005 ~ 2006 Academic Year *February 2008 / February 2007*

PORTFOLIO

www.kenfan.net

WORK EXPERIENCE

- **Indiana University Center for Survey Research, Web Designer/Programmer** *February 2009 ~ March 2010*
Responsibilities include IX/UI design and programming of the projects in CSR. Technologies/tools used including ASP.NET MVC, ColdFusion, XSLT, HTML/CSS/JQuery, Flex, Fireworks, DreamWeaver, VS 2008, MS SQL, etc.
- **Shanghai ADC Logistics, Web Designer/Developer/Translator** *August 2007 ~ September 2007*
Designed and implemented a company portal website (Lines of code: Rails 1,000 | HTML 2,000) using HTML/CSS, Ruby on Rails, MySQL for the China branch of a Korean logistics company ADC Worldwide Logistics Co., Ltd.

USER-CENTERED DESIGN SKILLS

- Diary Study, Cultural Probes, Focus Group, Contextual Inquiry, Ethnographic Observation
- Personas, Affinity Diagram, Scenarios, Card Sorting, Wireframe, Paper Prototyping, Wizard of Oz, Usability Testing

TECHNICAL SKILLS

- Programming Languages: [C#, C, ActionScript 3] (Advanced), [Ruby] (Intermediate)
- Web: [Flex/AIR, ASP.NET MVC, HTML/CSS, JQuery] (Advanced), [ColdFusion, RoR, XSLT, Flash] (Intermediate)
- Databases: MS SQL Server (Advanced), MySQL (Intermediate)
- Graphic Design: Fireworks (Advanced)

RECENT PROJECTS

CSR New Homepage

The old homepage of CSR was created over a decade ago, and both the styling and content were outdated and not in accordance with the high profile of the CSR in the survey research industry. Content of the old homepage was analyzed and new information architecture was built. Interviews and wireframes (using Balsamiq Mockups) were used to collect user anticipation and feedback of the new design. HTML version was built upon the approval of the wireframe and was iterated for several times before the approval of the final product.

CSR Survey Editor (Lines of code: XSLT 6,000 | C# 2,500 | HTML/CSS/JavaScript 2,000)

Designed and implemented a survey editor to help project managers in CSR to create and modify online surveys much more efficiently and conveniently than before and expedited the survey creation process significantly by removing the tedious and error-prone task on programmers' side. Taking advantages of XML, XSLT and JQuery, the editor is highly modularized and expandable in code, and rich in intuitive interactions to create/modify/move/delete parts of a survey at different hierarchical levels.

CSR Scheduling System (Lines of code: C# 6,000 | HTML/CSS/JavaScript 3,500)

Designed and implemented a system for the field managers of CSR to make staff shift schedules much more easily. Followed the UCD principle and used the learned UCD methods (interview, contextual inquiry, paper prototyping, usability testing), the system met the needs and expectation of the end users and greatly alleviated

their burden of creating the schedule every week by hand. ASP.NET MVC and JQuery/CSS are used to develop the system and Domain Driven Design (DDD) pattern is strictly followed to ensure separation of concerns, code robustness and system scalability.

Affective Artifacts (Research Project) / BunnyMessenger (Lines of code: ActionScript 3 1,200)

The project is conducted by the Everyday Computing Research Group at IU School of Informatics lead by Dr. Shaowen Bardzell. The purpose of the study is to better understand how people use affective products in the home and work environments and to better inform the design of future affective products. As one of the members of the group, I designed and implemented a software called BunnyMessenger to let subjects of the study to communicate with others through Nabaztag, one of the artifacts used in the study. Adobe AIR was used to implement the design to ensure cross-platform compatibility and auto-update capability. XML is used to collect user data.

Physical Media & Sensors (Seminar) / Gentle Driver's Box & Wave Your Mind (Animated LED Glow Stick)

The goal of the students attending the seminar is to learn how to use microcontrollers (specifically Arduino) together with various of sensors to design and implement physical interactive media in both technical and higher level. My first project is a box used to remind bus drivers not to drive wildly by flashing LEDs and sound alerts. The basic mechanism is to detect the acceleration of the bus using an accelerometer sensor. My second project is an LED stick. Using the persistence of vision mechanism, the stick can produce illusionary animation by waving it exceeding certain speed. The purpose of the project is to replace traditional glow sticks used in festivals, which are poisonous, unsustainable, and static.

INTERACTION DESIGN PROJECTS

Basic design process of the projects:

- Conduct literature review and user research in the forms of online survey, semi-structured interview, focus group, ethnographic observation, and contextual inquiry to explore and understand the problem space.
- Based on the research findings, come up with personas for the design. With them in mind, sketch initial designs on paper. Upon team consensus, one or two designs would be adopted to make paper prototypes. Fireworks or Photoshop would be employed to make more accurate CG versions when necessary.
- Conduct usability testings using the paper prototype, and redesign the system based on testing results.
- Compile design rationales and usability testing reports, and present the design in class.

• Thermostat Redesign

Many people do not understand the mechanism of a thermostat, thinking that by setting the temperature on a thermostat either too low or too high would increase the power of the A/C and thus expedite the cooling/heating process. In fact the thermostat is just an on-off switch which cannot adjust the power of the A/C. Redesign a thermostat display to correct this problem by reflecting how users think about the thermostat, without changing the basic operation of the thermostat or the home's cooling or heating system.

• UReader

Most of the current RSS readers have a common problem: in the RSS reading mode, the context (i.e., the images, background, video/audio, navigation links, etc.) of the original webpage is missing, and the reading experience is compromised. Design a new kind of RSS reader that address this problem without modifying the basic mechanism of RSS.

• WeightWatchers on iPhone

WeightWatchers is a commercial diet program. It converts the nutrition facts of food to a point system, and regulates the number of points the user can consume on a daily basis. Many users quit the program after a certain period of time. Design an iPhone app that can help them to stay in the program.

UNDERGRADUATE CAPSTONE PROJECT (Lines of code: Flex 13,000 | CSS 500 | Rails 2,000)

iAsk Self-service Online Q & A System (www.kenfan.net/portfolio/undergrad/iask.zip)

Employed **Flex** and **Ruby on Rails** to develop an **RIA** (Rich Internet Applications): a self-service online Q & A system for distance education. Students can use the system to search answers to their questions, if there is no answer to the question, the system will forward the question to the teacher(s) in charge of the course, and then passes back the answer to the students once the question is answered, as well as adding the answer to the knowledge database of the system so that the answer can be found in the future search of the same question.

This project was an individual capstone started from scratch, responsibilities include design of interaction, interface, system architecture, database, and implementation of both client side (Flex) and server side (Rails), and system deployment. Utilizing the advantages of Flex, the product delivers better and smoother user experience as well as less waiting time than traditional web applications.