THE RESEARCH ASSISTANT EXPERIENCE

CRYSTAL KWOK & RACHEL CHEN

in case we haven't met you...

Rachel Chen &
Crystal Kwok

Psychology major
Computer Science minor

why we are presenting:

to share about the research assistant experience in the Design Lab

discussion we would like from this:

what do you think could be added to the RA experience to enrich us more as undergraduate RAs?

how can the lab benefit more from RAs?

EVERYTHING WE DID!

writing prompts
idp (individualized development plan)
eye tracking training
reading papers (crowdwork and reading strategies)
data coding (text)
create interface & show interactions
create training for critical and developmental reviewers
finding papers

IDP

IDP crystal kwok

DESIGN LAB,
under Catherine Hicks
SPRING 2015

CURRENT SKILLS

user centered design methods

usability testing, heuristic evaluation, persona writing, wireframing, prototyping, competitive analysis, storyboarding, user stories, user scenarios

psychological research methods

running subjects
EEG
eyetracker

programming & design tools

Java
C++
C
HTML
CSS
JavaScript
Adobe Creative
Axure
InvisionApp

PERSONAL DEVELOPMENT

i would mainly like to work on

experimental design
designing & prototyping the experiment interface
statistical analysis
various qualitative and quantitative research methods

i would like to work a little bit on

front-end programming
back-end programming
SPSS / JMP
running subjects

GOALS

concept goals

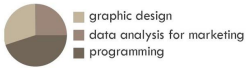
learn how to apply what i learn in the industry
learn how to combine ux design with research done in a research lab setting
be involved with most aspects of conducting an experiment
learn more user research methods used in the industry

concrete goals

attend lab meetings
interact with the PIs and professors
read a few papers on emerging technologies in hci
take a small part in writing a research paper
do more personal research on online learning and peer feedback, finding a few papers to contribute to the group

Rachel Chen

Third year undergraduate student
Psychology B.S. - Sensation & Perception
Computer Science Minor
When I'm not in class…



Skills

JMP
Research Methodology
Adobe Illustrator
Adobe InDesign
Java/Javascript
MySQL

RA Summary

» Participate in experimental design through critical and creative thinking
» Assist with experiments for design implementation and data collection
» Carefully run through and analyze data to solve problems with statistics
» Engage in meetings and keep an open dialogue with all members of the lab
» Initiate when there are opportunities to learn and apply my area of skills

I'd like to…

» Consolidate logic on hypothesis testing by reading
» Become proficient in usability testing by learning how to conduct A/B testing
» Gain insight on principles and applications of human-computer interaction and machine learning
» Have the opportunity to explore and experiment with UI design

Career Interest

» Interface Designer
I want to: apply knowledge of human cognition and visual processing to come up with a creative designing solution.
» User Experience Researcher
I want to: explore the ways in which we perceive and interact with products to approach human intuition.
» Artificial Intelligence Researcher
I want to: explore a field that fascinates me! Specifically, I'd like to focus on sensation and perception (object recognition and such)

I should learn…

To achieve my career interest/goals, I'd like to acquire these skills (whether in or outside of Design Lab):
» HTML/CSS
» Adobe Dreamweaver
» Front-end programming languages
» Machine learning algorithms
» And more. Always eager to learn!

IDP (individualized development plan)

takeaway: make goals more concrete
accountability
motivation and building towards our career goals

advice: do it!

challenges: what's possible?

- mitigation: weekly meetings with Cat

CONTEXT SCAFFOLDING FOR NOVICE REVIEWERS WITH RESUMES

more context + training (phases) on the subject = better peer feedback?

- deep feature vs. surface feature
- quality of review

CREATING INTERFACE & SHOWING INTERACTION

PEERSTUDIO TERMS HELP BAYMAX

PEER FEEDBACK REVIEW #1

This is **Tadashi's resume.**

About Tadashi

- His goal is to get a job as a **software engineer**
- He is at the **beginning** of his career
- He is a **beginner** in his field

Content is the substance people choose to put on their resumes. What experience is relevant? What skills are listed? Content is the WAHT of the resume.

Give feedback on this resume!

[redacted]
0000 Preston Avenue ◆ Houston, TX 77000 ◆ (281) 000-0000 ◆ myname@aol.com

Career Target: Software Programmer / Software Engineer

PROFILE

Talented software programmer with BBA degree, strong educational background in programming, and experience using cutting-edge development tools. Articulate and professional communication skills, including formal presentations and technical documentation. Productive in both team-based and self-managed projects; dedicated to maintaining up-to-date industry knowledge and IT skills.

Knowledge & Skill Areas:

- Software Development Lifecycle
- Object-Oriented Programming
- Problem Analysis & Resolution
- Web Site Design & Development
- Requirements Gathering & Analysis
- Technical & End User Documentation
- Software Testing & Troubleshooting
- Project Teamwork & Communications

TECHNICAL SUMMARY

Languages: Java, C, C++, JSP, ASP, Rational, HTML, SQL, Unified Process
Operating Systems: Linux, Windows XP/2000/9x
Object-Oriented Design: UML, Design Patterns

EDUCATION

TEXAS UNIVERSITY, Houston, TX
Bachelor of Business Administration in Computer Science, 2002

- Earned place on President's List for 3 semesters (4.0 GPA)
- Member, Golden Key National Honor Society & Honors Fraternity
- Selected for listing in *Who's Who Among Students in American Universities and Colleges*

Relevant Coursework:

- Software Engineering
- Project Management
- Database Design
- Systems Engineering
- Differential Equations
- Classical / Modern Physics
- Calculus I, II, III
- Logic Circuits
- Systems Analysis

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Project Highlights:

- **Software Engineering**—Served as Design Team Leader and member of Programming group for semester-long project involving development of software for actual implementation within Texas University Recreation Center. Determined requirements, created "look and feel" for user interface, and maintained explicit written documentation.
- **Systems Engineering**—Teamed with group of 4 in conceptualizing and designing client-server application to interconnect POS and inventory systems for retail outlet, delivering class presentation that highlighted specifications and projected $2 million in cost savings.

COMMUNITY COLLEGE, Houston, Texas

- 3.96 GPA / Concentration in Computer Science coursework

EXPERIENCE

DATAFRAME CONCEPTS, L.L.C., Houston, TX 2000–Present
Software Developer

- Worked with small team of developers to brainstorm and implement ideas for shipping/receiving software representing leading-edge concept within transportation industry.
- Planned and initiated redesign of existing standalone application, utilizing object-oriented design/programming and Java in creating thin-client GUI for new distributed system.
- Collaborated with marketing director in strategies to further business growth, including Web site enhancement that drove 65% increase in visitor interest for product offering.

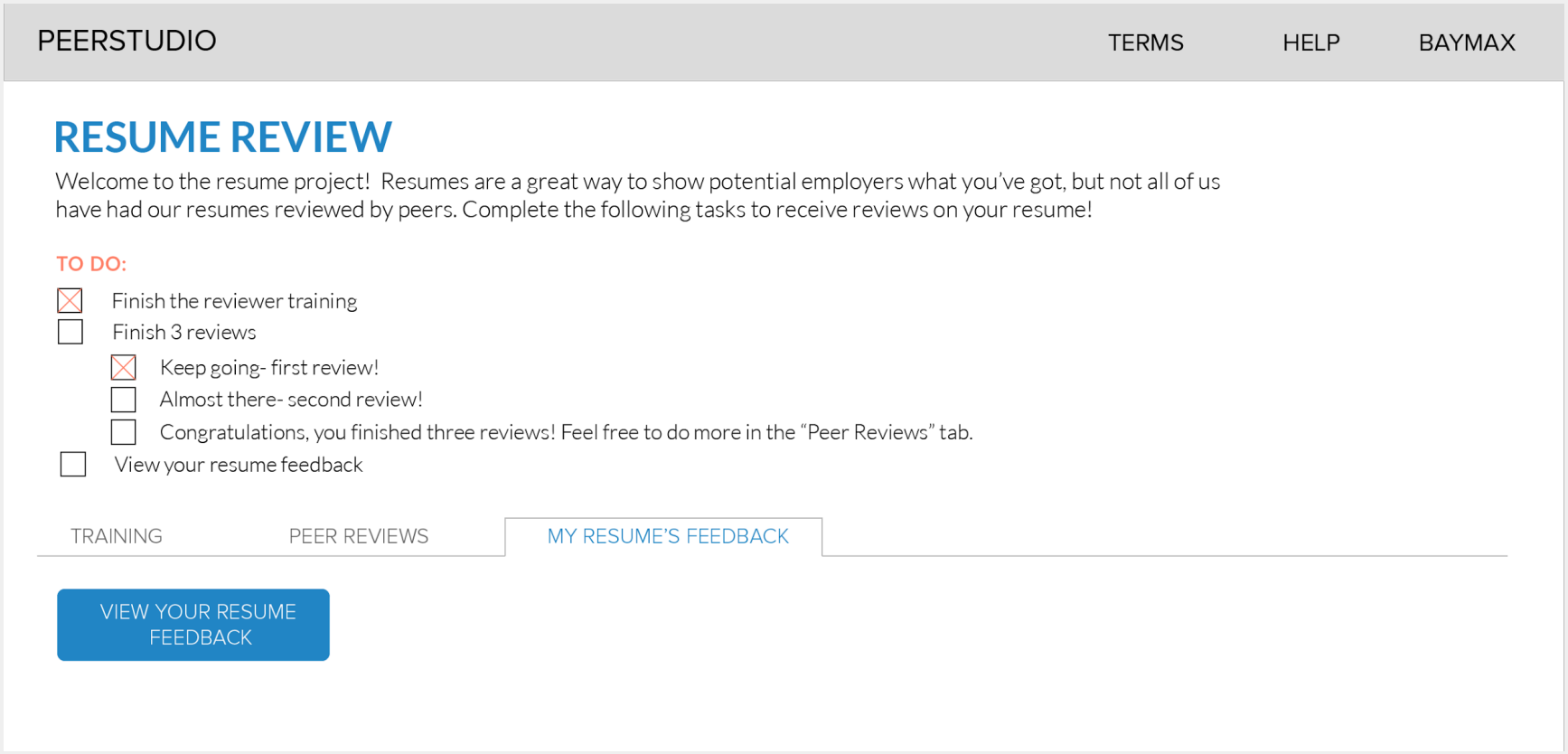
** References and additional information will gladly be provided upon request.*

examples:
"You could explain your most relevant job opportunity more than others"
"Your objective summary soudns bland and not personal. Don't use filler words like "hardworking," can you describe yourself in a more genuine way by talking about your passions?

Now write your own feedback for Tadashi!

SUBMIT

CREATING INTERFACE & SHOWING INTERACTION



CREATING INTERFACE & SHOWING INTERACTION

Stanford + UCSD | PeerStudio Terms Help ▼ Tadashi Hamada ▼

Comparison Feedback

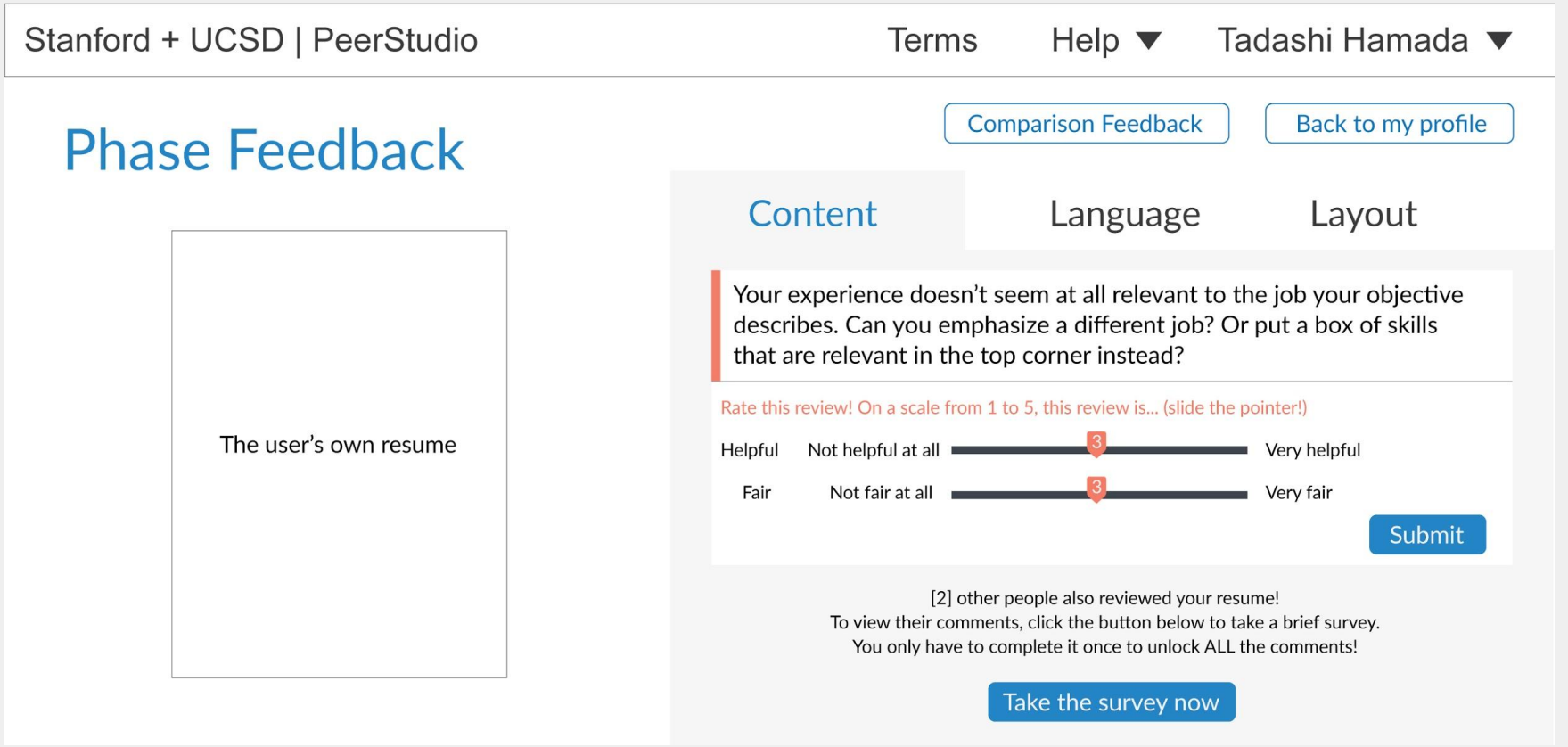
Phase Feedback Back to my profile

[3] people think you could learn from THIS resume!

- Their layout is cleaner and easier to read.
- Make a section that lists your skills like this one.
- Work on how you describe your internship: it's incomplete and doesn't include any accomplishments you may have had

CREATING INTERFACE & SHOWING INTERACTION

click here for a quick demo!



CREATING INTERFACE & SHOWING INTERACTION

why we liked it: towards our career goals

takeaway: designing interface and interaction synonymously with the experimental design

challenges: short amount of time

will it come to fruition?

technical difficulties: different environments

advice: feedback throughout the process

DATA CODING

example: counting the number of “surface” and “deep” feedback

takeaway: time

what we learned: see differences in control and experimental conditions after we’re done coding

difficulties: specifying the “gray areas” so everyone codes similarly

advice: provide examples, ask for clarification!

- be detail oriented
- a way to ensure accuracy

FUTURE WORK: RESUME PROJECT

html, css, ide

implementing the interface with ruby on rails

POTENTIAL FUTURE WORK: OPPIA

focus on experimental design

oppia vs khan academy

how to create better personalized learning?

GOALS AND DIRECTIONS

WHAT WE LEARNED AND HOW WE GREW

crystal

prepare for experiments (artifacts, trainings, reading papers)

what can we look for in data?

lab meetings!

taking initiative and control of my goals, learning, and growth

rachel

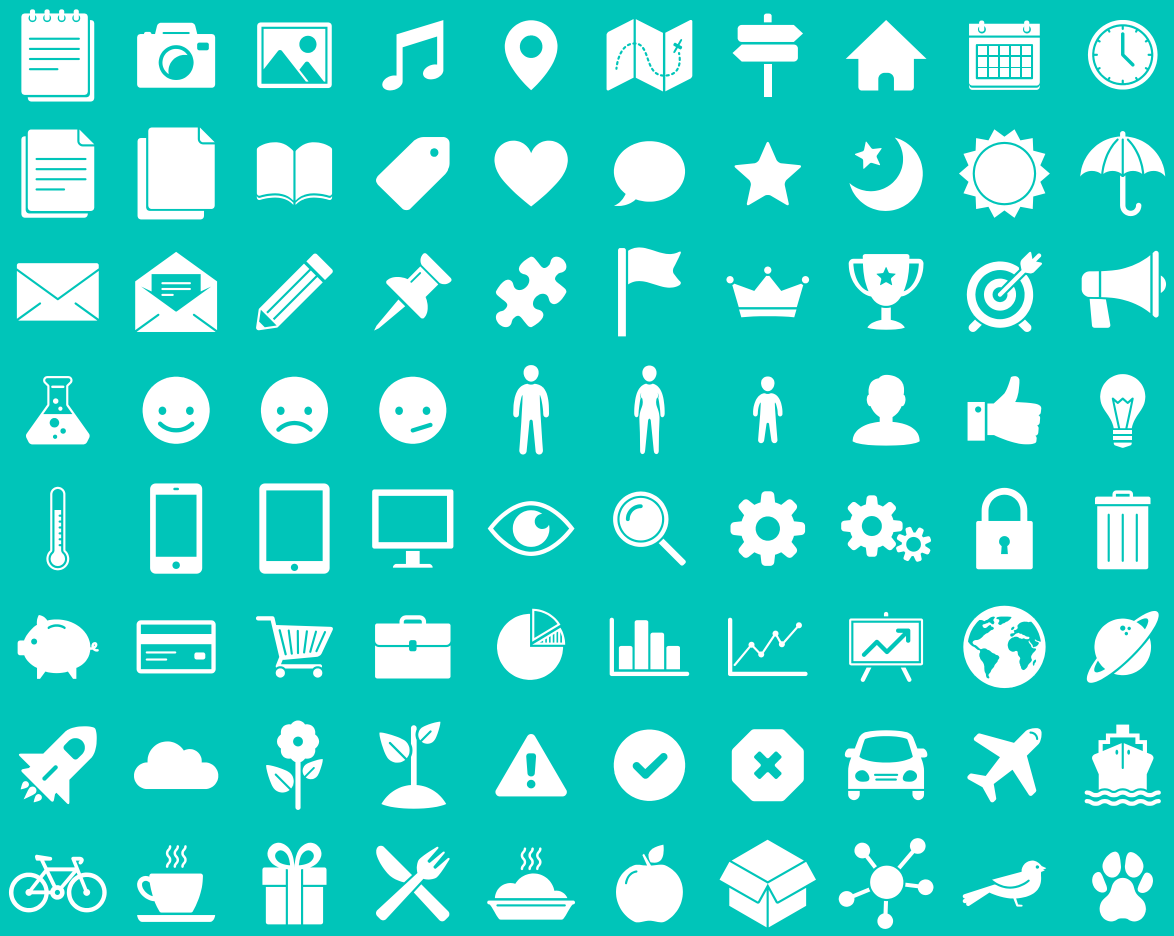
designing research, researching design

stopped taking things as they come

parallel prototyping

thank you EVERYONE for a great experience in the Design Lab!

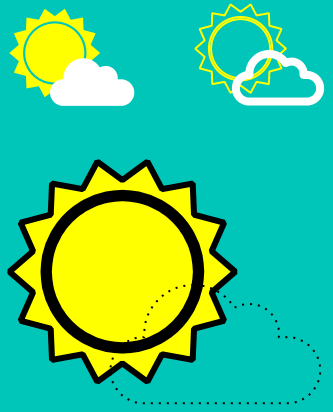
special thanks to Cat and Vineet for their guidance



SlidesCarnival icons are editable shapes.

This means that you can:

- Resize them without losing quality.
- Change fill color and opacity.
- Change line color, width and style.

Isn't that nice? :)

Examples: