Assignment 7 – Prototyping your Final Project (Final Project Pt. 1)

Assigned: Wed Oct 30, 2019
Due: Wed Nov 6, 2019 11:59 pm

Project Overview

Assignments 7 and 8 together make up your final project for this course. You should choose a project that reflects and showcases your particular interests within HCI user experience design. See below for PUI and SSUI.

(PUI) Final Project Goals

- Use the prototyping skills you have been building up throughout this semester
- Gain skills in scoping a coding project
- Design an interesting tool or set of user interactions that will be an illustrative and impressive addition to your web portfolio. You will be required to do **at least** one of the following things (Note: We will cover some of these in lab):
    - Use a new JS library (e.g., jquery, react, p5, d3, bootstrap)
        - Note: Since there are so many JS libraries, the libraries listed above are the only ones TAs will be able to help you with
    - Use a web API
    - Use animations
    - etc.
- Responsive Design (i.e., should work for different sized web browsers)
    - Note: As we discussed in lab, you can use Bootstrap to help you with this (you are NOT required to though).
    - Resources: https://getbootstrap.com/docs/3.3/

Design a website with custom interactions and interesting ways to engage the user.

- **Option 1:** Web portfolio (either for you, or for someone else). Examples:
    - http://www.awwwards.com/creative-web-portfolios.html
    - http://www.rleonardi.com/interactive-resume/
    - https://www.creativebloq.com/web-design/examples-of-javascript-1233964
    - https://greensock.com/examples-showcases
    - General tip: do a search for MHCI and BHCI alumni who have graduated and recent years, and see how they organized their portfolio and how they presented themselves. Do this as a form of competitive analysis, but also to broaden the range of your ideas. https://hcii.cmu.edu/people/alumni

- **Option 2**: Informational tool (that teaches the user about a topic). Examples:
    - http://www.siyanz.com/images/PUITA/work/asaini/UXDesignTool.html
    - https://www.ge.com/digitalvolcano/
    - https://en.oollee.com/
    - http://www.nexusinteractivearts.com/webar/

    - http://cssgridgarden.com/
    - An interactive tool explaining confusion matrices (see AI/ML lectures)

- Option 3: Create a cool interactive web site / web tool. Below are some example ideas:
    - Use D3 library (or other) to create a cool interactive visualization that offers new insights into an existing data set, e.g. design pattern explorer, or a way of visualizing past MHCI alumni + capstone projects
    - Create a web game that helps people understand what they should recycle vs compost vs throw away
    - Create a web game that teaches people about some part of HTML / CSS / JS

- IMPORTANT: If you have an idea and are not sure if it fits the assignment requirements, please talk to the TA ASAP so we can help you choose a project that fits within the assignment scope that is of personal interest to you.

In Assignment 7, you will be laying the groundwork for the final deliverables in Assignment 8. You will exercise your prototyping skills by designing and testing at least one medium-fi prototype of your project, and will use these iterations to then start coding out your hi-fi prototype using HTML/CSS/JavaScript.

(SSUI) Final Project Goals

- Use the prototyping and programming skills you have learned throughout this semester
- Gain skills in scoping a coding project
- Use a new JS library / framework / hardware platform you haven't used before
- Build something really cool that will be fun and good for your portfolio

The specifications are a bit vague by design, but below are some example ideas.

- Create a cool visualization of the Encyclopedia of Life data https://eol.org/. When did animals go extinct? Which animals?
- Create a tool that can help people understand issues of AI/ML bias and fairness. For example, see https://pair-code.github.io/what-if-tool/ and http://research.google.com/bigpicture/attacking-discrimination-in-ml/
- Use Apple ARKit and build a fun interactive game
- Create a cool Chrome browser plug-in that makes it easier to detect errors / debug / visualize / interact with a web page in new ways
- Create a Chrome browser plug-in that looks at what web page you're on (e.g. a news article), gets tweets that people have posted about that web page, and shows it on that web page as you're reading it.
- Use Webassembly to create a really interesting interactive app (note that Webassembly just lets you program in other languages, so it's a bit of cheating, but it could be a good experience to learn about it. For example, Figma seems to use WASM.)
- Create a game that teaches people about how to identify fake news (we have some ideas, ping Jason if you want to do this one)

All Deliverables will be submitted to Canvas.

Deliverables *(15 pts total)*

Please double check that your submission uploaded correctly on Canvas. In the past, some students thought they had submitted but had not.

[all in a single pdf document w/appropriate labels for each section]

- (5 points) Write 5-10 sentences (no more!) of your project. Below are example questions to answer, note that some questions might not apply depending on your project.
    - What is the basic idea of your final project? (1-2 sentences)
    - How you plan to make your design interactive and engaging.
    - What information you specifically want to convey and include on your web site. For example:
        - **Option 1:** What about information about yourself do you want to include? How will you convey your unique personal interests? What projects will you include?
        - **Option 2:** What is the tool intended to do? What should users learn by using the tool? Who is your target audience?
    - (Optional) For the final project assignment, you will be required to use either a new JS library, a web API, or animations. List the external libraries, APIs, or tools you plan to use for your project to complete this requirement.
    - (Optional) Any questions or concerns you have about fully coding out this project or suggestions/advice/feedback you are looking for specifically.
    - *Please note we reserve the right to deduct points for issues such as grammar, legibility, etc.*
- (10 points) Images or links to mid-to-high fidelity mockups
    - E.g., Balsamiq, InVision
    - If you use paper, the prototype must include enough detail for TAs to understand the page and purpose without much prompting. That is, the design must stand on its own and show all interactions (e.g., pop-ups). Basically, it should look like a mid-fidelity prototype even though it is on paper. If you plan on having animations and are submitting paper prototypes, add some detail about how you plan to use animation in your writeup. Have some sample text to help TAs understand the goal of the page.
    - You must include web version of the mockup (e.g. an InVision prototype share link, not the actual web pages).