THE YALE DEVELOPER CONNECTION
Designing a UI and Analytics Tools for a Jobs Matching App

BACKGROUND

Yale is home to a huge number of energetic entrepreneurs, interesting academic projects, and talented programmers. Sometimes, though, those parties have trouble finding each other. As a student, it can be difficult to find a term-time or summer job that matches your skill set. As a professor or project leader, it can be hard to find willing programming talent to help build your idea.

OVERVIEW

I will design and build a web application to help connect programming talent with projects in the Yale community. It is effectively an online classifieds page for individuals looking to find a job or to hire a programmer. Those with specific projects in mind—whether they’re students looking to build a company, scientists carrying out an experiment, or professors building something for research—can post their project on the site. The listing will have a specific description of what the project is, what’s required of the new hire, and what type of specific skills are needed. Students with extra time and in-demand skills can use the Developer Connection to find a job that suits their interests, schedule, and skill set. I hope the Board will help more projects come to fruition while also generating additional excitement about entrepreneurship at Yale.

The projects board will be a website at first available to anyone with a CAS login. As time goes on, we will explore allowing individuals and companies outside Yale to post project listings as long as we can assure quality. (Only Yale students will be allowed to log in as users seeking work.) The specific workings of the Board from the perspective of both groups of users are outlined below. I will focus on (1) clean and thoughtful design; (2) a carefully considered user experience, with special attention to privacy concerns and customization; (3) front-end implementation of the product using Angular.js (a JavaScript framework built and maintained by Google) as part of a “MEAN” stack, which also includes Mongo DB, Express.js, and Node.js; and
(4) integrated analytics that can be read to evaluate the successes and failures of the Project Board’s user interface.

To complete the project, I will work with Rafi Khan PC’15. He has separate responsibilities and deliverables from mine which are described in his project proposal.

**DESIGN & UX**

The developer marketplace is a tool. Unlike a web app like Facebook or YouTube that seeks to provide an experience, the marketplace is used for a specific purpose. The design of the marketplace then becomes a simple question of making the tool’s functionality as straightforward and robust as possible. My goal is to eliminate any sort of learning curve or learning delay: the tool should be so clear and easy to use that “learning” is not required.

- **Ease of access**
  - integrated CAS login for project leaders and workers minimizes difficulty getting users to sign up
  - posting a project is as simple as filling out a one-page web form. It costs no money and almost no time to put a listing up; why not?
  - indicating interest in a project is not a commitment. The Projects Board connects people and all interaction takes place off-site or in person. It’s easy to reach out simply to request information and begin a conversation.

- **Quality control**
  - Postings at first are only from members of the Yale community.
  - Postings must have a certain level of detail about the types of tools or languages necessary, along with time commitment, pay, schedule flexibility, information on the larger company, etc.
  - Workers are CAS verified members of the Yale community

- **Customizable privacy**
  - Workers have the ability to create user profiles that include biographical information, work history, skills, and previous jobs taken through the site.
  - However, no information is pulled by default; workers share what they’re comfortable with.
  - The app will have a feed of “recommended jobs” based on skills and job history. The user will be able to opt-out if they do not want this information to be collected about their behavior on the site.
  - Worker profiles and job listings are not viewable without logging in through CAS

- **Robust search**
  - The app’s true purpose is its full search: it will provide options for intense specificity.
  - Students looking for postings may want to search by time posted, type of project, skills required, time commitment, pay, name, or even specific keywords.
  - Search must be very powerful but incredibly simple to use.
FRONTEND

The front-end will be a clean implementation of this design for desktop and mobile browsers. I’ll use the Angular.js framework. UX is difficult to quantify, but I would like an empirical measure of the design’s level of success. To that end I will use (or design) an analytics tool to create a visualization of user behavior, including time spent on a page and mouse activity across different elements of the page. This type of data will help me understand what elements of my design are effective. It can also provide a basis for study on how to improve the site’s design as well as what lessons can be learned about future design habits of my own.

DELIVERABLES

● A completed and launched Projects Board, with full functionality as outlined in the project specification.
  ○ Users log in, create and fill out a profile, and can search through job postings to find what suits their skills and interests.
  ○ Project leaders log in and create projects with any number of clearly specified openings.
  ○ Mobile site for multiple screen resolutions
  ○ Responsive desktop site for multiple screen resolutions
● A maintainable analytics tool to understand how users interact with the site.
  ○ Data will include specific user behavior across each feature of the site
  ○ A review of the collected data that analyzes effective and ineffective practices, along with some synthesis of why certain tools or tactics are effective.
  ○ Potential for A/B testing to determine most successful UX strategies