Final Web Design Report

The integration of Five elements of User Experience

1. Introduction

When it comes to the web design, theories of design should be integrated into the whole process, from identifying site objectives to conducting tests. The Stanford D-school came up with some inspiring ideas related to the design thinking, namely, empathy, define, ideate, prototype and test. Similarly, Jess James Garrett, illustrated the steps of web design from five elements related to user experience, that is, strategy, scope, structure, skeleton and surface planes, five dependent layers of user experience. In a nutshell, website design is not only concerned with visualizing design but also the website contents and functionalities. How to make a user-centered website with visualized layout and high-quality contents is the question I should take into consideration.
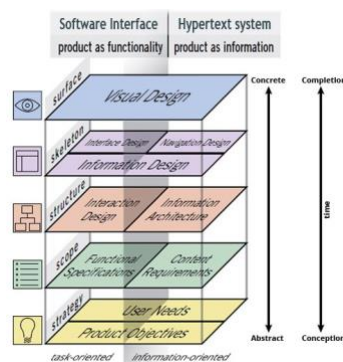

Figure 1: Five elements of user experience

In this web design report, I will illustrate the process of personal website design and use infographics to show test results and thoughts.

2. The Strategy Plane

Based on my interest, previous knowledge and internships in corporations, I want to apply a job position of product operation in the internet company based in Hong Kong or mainland China. In the stage of empathy, I should figure out what my target audience or website visitors want to know about me through my website and whether it meets their expectation or not. Basically, I do research for clearly understanding the user needs and come up with my website objectives. Since my personal website is for the job application after graduation, my website objective is to present the content with layout that recruiters are interested in, then persuade them to send me an interview invitation. Therefore, I started to search the qualifications for product operation specialist required by companies, such as Tencent, Baidu and Alibaba. According to my search results, requirements include three aspects:

➢ **Good communication skills, Writing ability and Source gathering skills**

Since product management is not an individual task, all the companies require candidates with the strong communication and team working skills to realize the optimized goal. The high-quality contents are the core of products. Thus, the candidate should be good at writing and source gathering, converting product goals into concrete contents for audience.

➢ **Familiar with product life cycle: design, test, data analysis, execution and evaluation.**

As the task of operation take place at every stage of product development, operators

are supposed to know how to position your product and solve problems based on data analysis

➢ **Know a variety of internet products, own good marketing and operation strategies.**

Operation is similar to marketing. Good product operation specialist should know how to promote their product to customers, and keep them attached to it.

Then I interviewed two friends of mine who are working in the Internet company. My friend Fay who works as a recruiter in Human Resource department in JD, told me that a personal website is something that helps interviewers know you better and it is also a good way to show your web-design skill, aesthetic taste and information aggregation ability. However, in the first-round application, HRs have no time to read it carefully, they just spend less than 60 seconds in scanning your one-page resume instead of browsing your personal website. As a result, your personal website is a complementary section added in the application mail, thus the contents on website should be simple but impressive.

Another friend Aidenkzs who works in Baidu as a product manager told me that your project experiences which are highly related to your job application should be included and highlighted in your personal website, since it is a great way to demonstrate your working ability in this area.

Based on the research and interviews, I elaborate the strategy plane in regard to the site

object, target users.

Site Objectives		Target Users		User Needs
Primary Goal	Presenting previous projects related to product operation to show my qualifications to job position	Primary User	Recruiters who are from top Internet companies in mainland China and Hong Kong	They are doing campus recruitments around China and looking for the students who are eligible for the product operation position.
Additional Goal	Showing my insights into the market and operation strategies	Secondary User	Recruiters from International or local 4As (agencies) related to integrated marketing communications	Recruiters are looking for Account Executives or assistant consultants
Additional Goal	Impressing people with creative copywriting skills and web design ability	Secondary User	People who are professional in similar career specialties with me	They may share their insights and experience with me, or provide some job opportunities

Figure 2: Site Objectives & Target Audience Persona

Figure 3: User journey mapping

3. Scope Plane

Following the strategy plane, I should decide what functions and contents would be displayed on my personal website, which are exactly in accordance with my site objectives and needs of target audience. Functional specification and content requirements are illustrated in the scope plane.

3.1 Function specification

- Linked-based Navigation

Linked-based navigation bar is set to help users who browse my website to have a clear

structure of my website, when people lost in my website, they are able to find the navigation bar on the top of the page.

- Download Resume

Since this website is made for job application, function of download resume is significant for visitors, especially the recruiters who have limited time for browsing my website. They could directly click the button "Download Resume" on the page.

- Contact Form

The contact form is necessary for visitors who want to contact me for information or just send me comments about website content or design. Therefore, it is placed at the bottom of my website, visitors could fill in the form after scanning all my contents on the website. the contact form is generated by Drupal. Hence, I am able to receive the messages at any time.

- Language Change

My target audience comprise of the employers from mainland China and Hong Kong, therefore both English and Chinese versions are required for recruiters who land on my website. There is a button on the navigation bar for user to click to change the language.

3.2 Content requirement

- Well-categorized portfolio

The portfolios are crucial for recruiters to show my skills, then convincing them of my qualifications for this job position. It will be classified with different icons.

- Background information

Background information includes education, internships and skills, showing a brief introduction to visitors

- Contact information

The contact information not only refers to the contact form, but also the social media links, such as LinkedIn, Twitter, GitHub etc.

4. Structure Plane

In the structure plane, I will use the sitemap to show the structure of my website, then give the illustration of primary user journey on my website to demonstrate the interaction between website and visitors.

Compared with multiple-page site, I choose to the single page website because of the changing reading habit of human beings and the popularity of one-page website. People don't want to spend time in clicking buttons or links several times. Additionally, the one-page site has a more distinct structure than multiple pages do. As I mentioned before, recruiters want to find the previous experience highly related to the job position. Compared with the backgrounds recruiters have known a few, I highlight the Portfolio section, placing it directly behind the Home section.
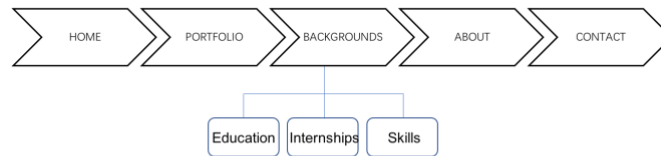
Figure 4: Sitemap of the website

In terms of the user flow, I believe that most of visitors go to my website by clicking on the link attached in mail or LinkedIn. Then they browse the page into the Home section just scroll down to the Portfolio, check out my" Feature work", "other work" and some product analysis & exploration in the Portfolio section. In this way, they could click each work to find more details, including wordings, links and videos. Next, they continue to scroll down or click the link on the navigation bar, moving to the Backgrounds section, including "Education", "Internships" and "Skills". If they don't have enough time, they can scroll to the bottom, get my resume with pdf version, or just send me the message for contact.

5. Skeleton Plane

Figuring out the site structure, I do the wireframe for my website, which is good to depict the page layout and arrange the page elements. Through wire-framing, I could identify the function relationships and the relative properties of the information and structure before caring about the typographic style, color, or graphics.

As I mentioned before, I choose the one-page website style, with clear, uniform structure and smooth user experience. The only task that user should finish is to continuously scroll their mouse for getting more information from my website. The sequence of content is Home, Portfolio, Backgrounds, About and Contact.

Additionally, mobile first has become a popular trend within the UX design and development communities. More and more people visit the website through mobile phones, thus it is wise to make my website responsive to different devices.
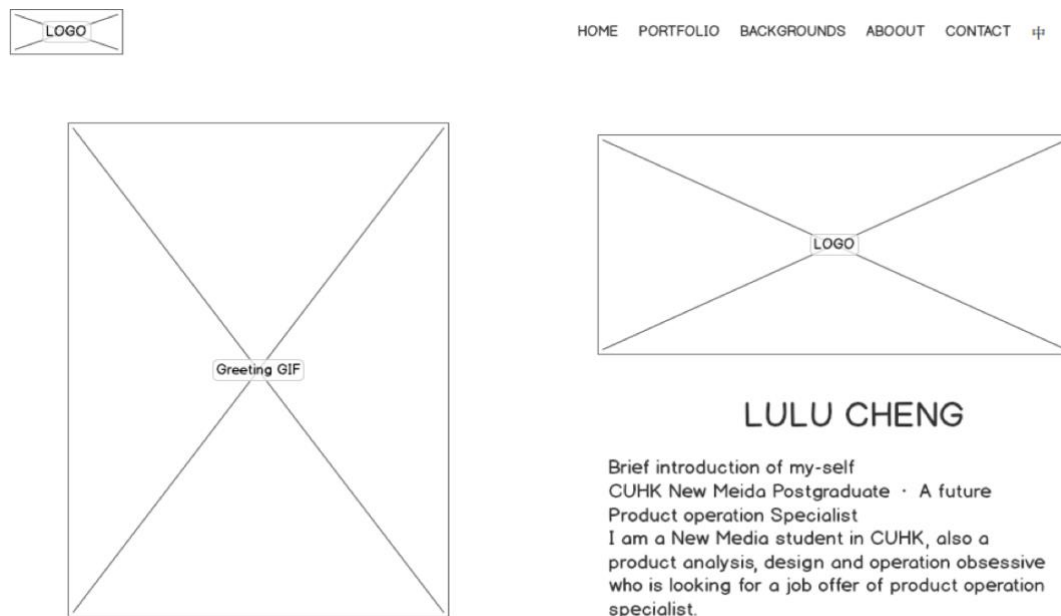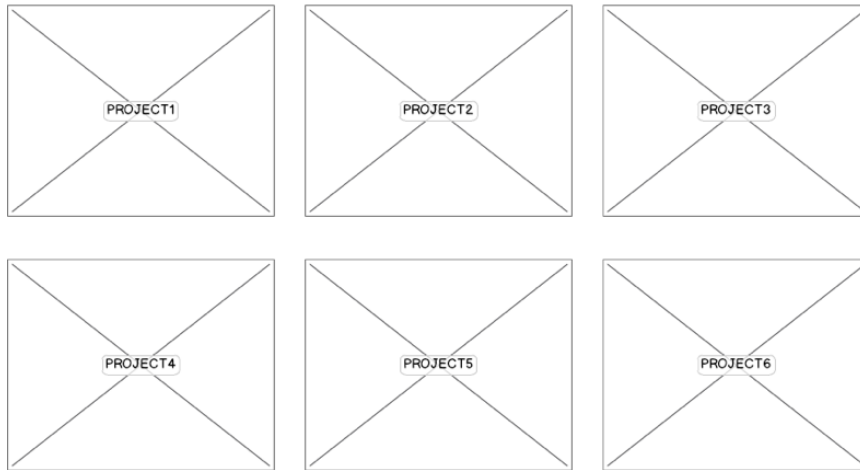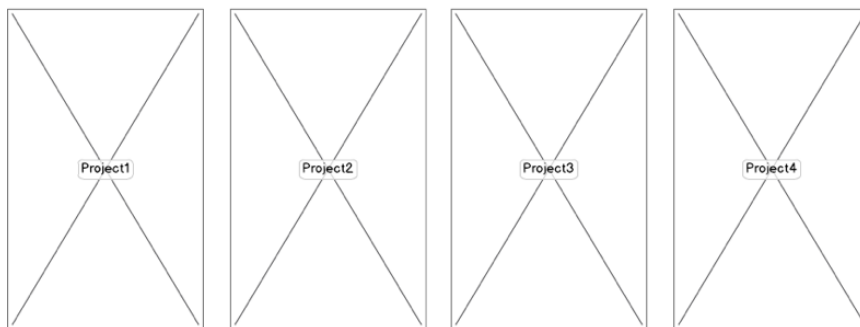

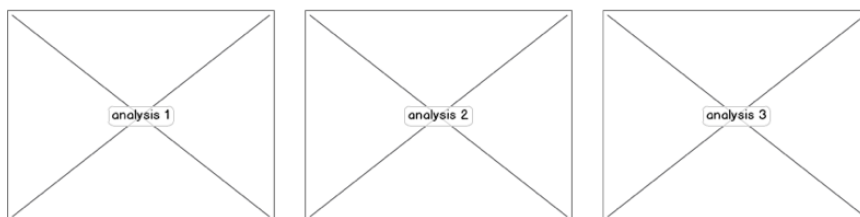*Figure 5: Wireframe - Home section*

PORTFOLIO

Feature work

Other work

Product Anlysis & Exploration

Figure 6: Wireframe - Portfolio section

BACKGROUNDS

Education

Chinese University of Hong Kong
Sep. 2017- Present
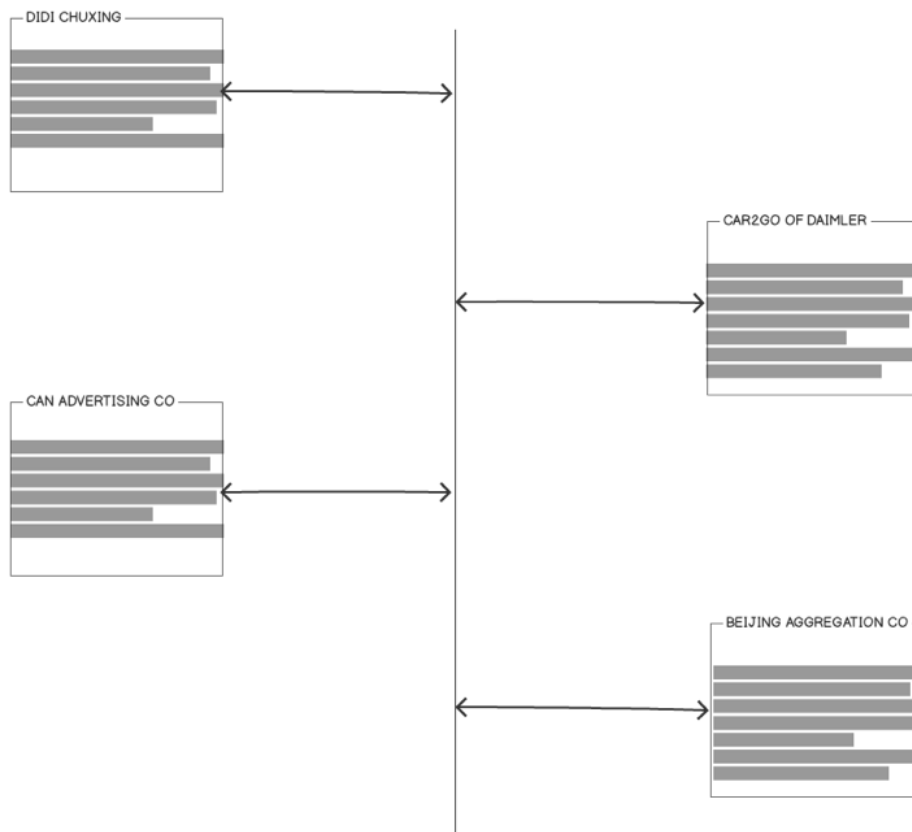
Postgraduate--Master of Scinence in New Media

Main courses: New Communication Technologies:Trends and Impacts, New Media Content Development, Applied Communication Research, Topical Studies in New Media I,etc.

University of International Business and Economics
Sep. 2013- Jun. 2017

Undergraduate--Bachelor of Arts in Business English

Main Courses: Web Page Design and Publishing, Principles of Economics, Principles of Marketing, Corporate Public Relation, etc.

Internships

DIDI CHUXING

CAR2GO OF DAIMLER

CAN ADVERTISING CO

BEIJING AGGREGATION CO

Skills

Language Proficiency

A paragraph of text with an unassigned link. A second row of text with a week link

Design Tool

A paragraph of text with an unassigned link. A second row of text with a week link

Web Language

A paragraph of text with an unassigned link. A second row of text with a week link

Communication

A paragraph of text with an unassigned link. A second row of text with a week link

Figure 7: Wireframe - Backgrounds section

Figure 8: Wireframe - About section

Figure 9: Wireframe - Contact section

I also show this low-fidelity for my friends, they suggest that I add the button "View portfolio" and "Download Resume" in the home section, since they found the two buttons are placed in the About section, which is not obvious and eye-catching for visitors who come to my website for the first time.

6. Surface plan

Based on the site objective, target audience, the site structure and wireframe I made, it's time to integrate them into the visual design level. Considering the elements of web design, I built my website with the bootstrap to make it responsive. With the HTML, CSS and some JQuery plugins, I finally made the visual design with featured contents. Then I upload the related files into my Drupal CMS, making it accessible for others.

As for the layout of my website, I want it clean, simple and flat. Instead of writing several contents on the page, I prefer to hide project details behind the project photo. As I used the bootstrap to design my website, it is strictly divided into 12 grids, photos and wordings are aligned with each other.

6.1 Key visual & Images

When people browsing my website, they will see the key visual. In this section, users could find a gif on the left for greeting, while see the logo and a paragraph for introduction on the right side. The reason why I chose to a mobile phone mockup to say hello with visitors is that the following portfolios are related to web or mobile based, especially the Apps. Therefore, I supposed that a phone mockup is not only be creative, but also indicates my interested in app prototype design. In terms of the background, there are many particles floating on the background, where I used the particle js to make it dynamic. It looks clean and balanced. Besides, user might be curious about the following contents of website since there is no photo about myself, therefore they would like to explore more with the guide of navigation bar fixed on the top of the whole site.
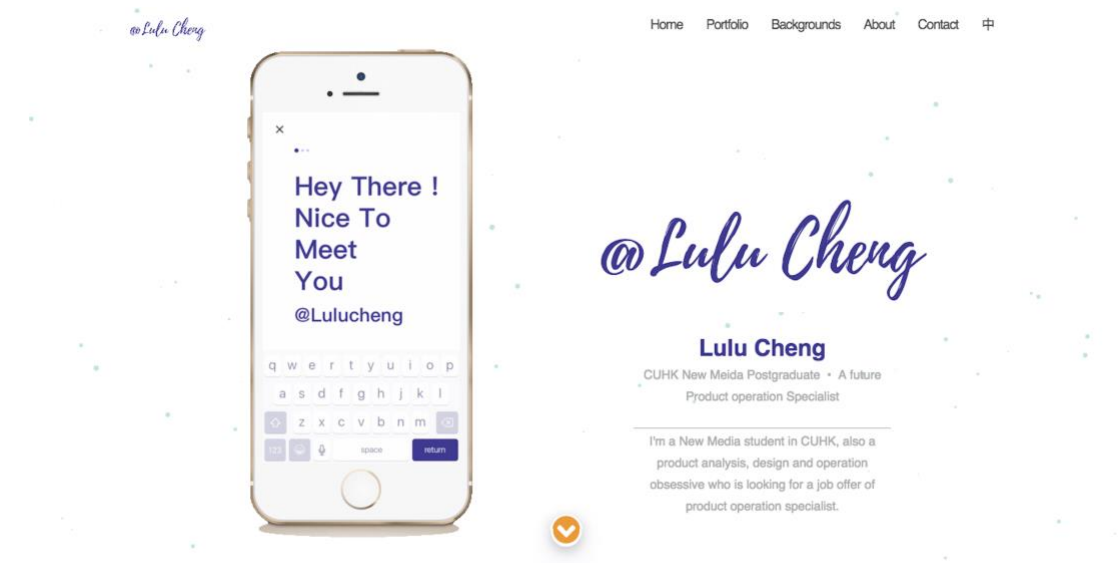
Figure 10: Key visual design in Home section

And all my images are displayed in the Portfolio section. There is a hover effect. When visitors hover their mouse over the project pictures, they could get a clear view about my work.
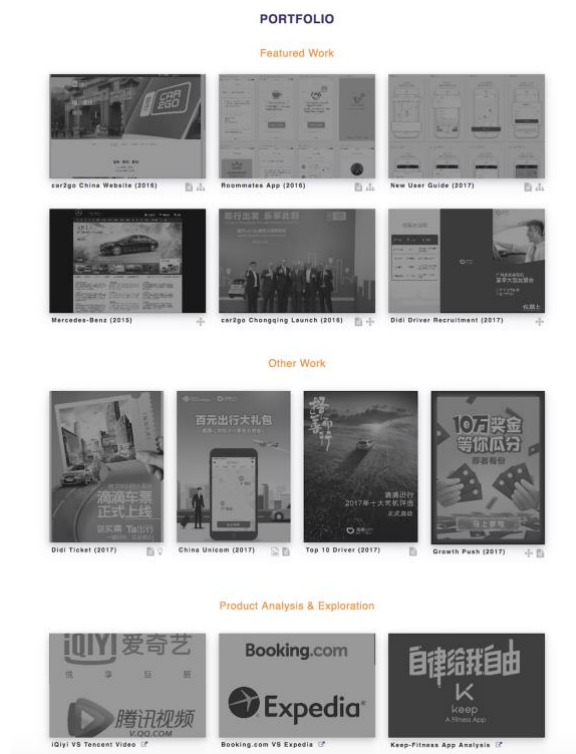
Figure 11: Images in Portfolio section

6.2 Color palette

Initially, I assumed that my website should have a flat design style. To realize this goal, I exerted the two colors to highlight information. Dark purple performed as the main color used in the headings and container wrap for my website to make visitors have a trustful and stable impression on me, while the orange is used for button, mouse hover effect and sub-heading, indicating a passionate and energetic image of me. Other texts are black or dark grey to make the whole page harmonious. In other words, colors used in my website is balanced and consistent with the tone I want to deliver to visitors.
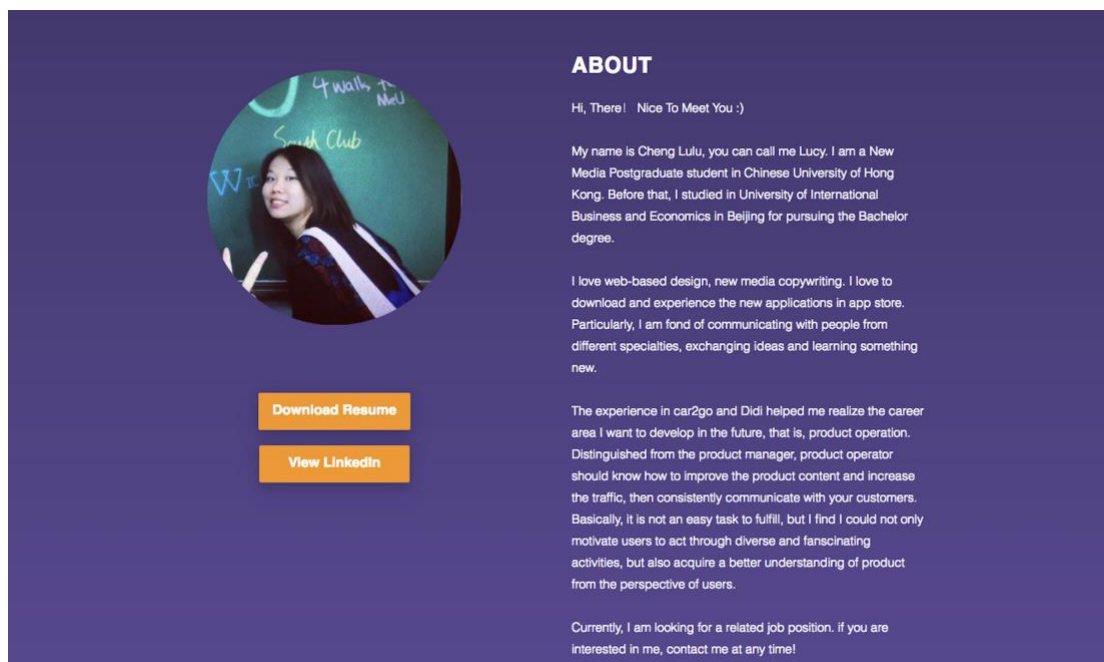
Figure 12: Color palette used in website

6.3 Typography and icons

The fonts in website are of significance to improve the readability and standardization. I used the sans-serif to design my website with some texts bold to emphasize the headings and focal point on the webpage. Moreover, some icons from Font-awesome

are applied to make my contents categorized and flat in the Portfolio section and Skill part.
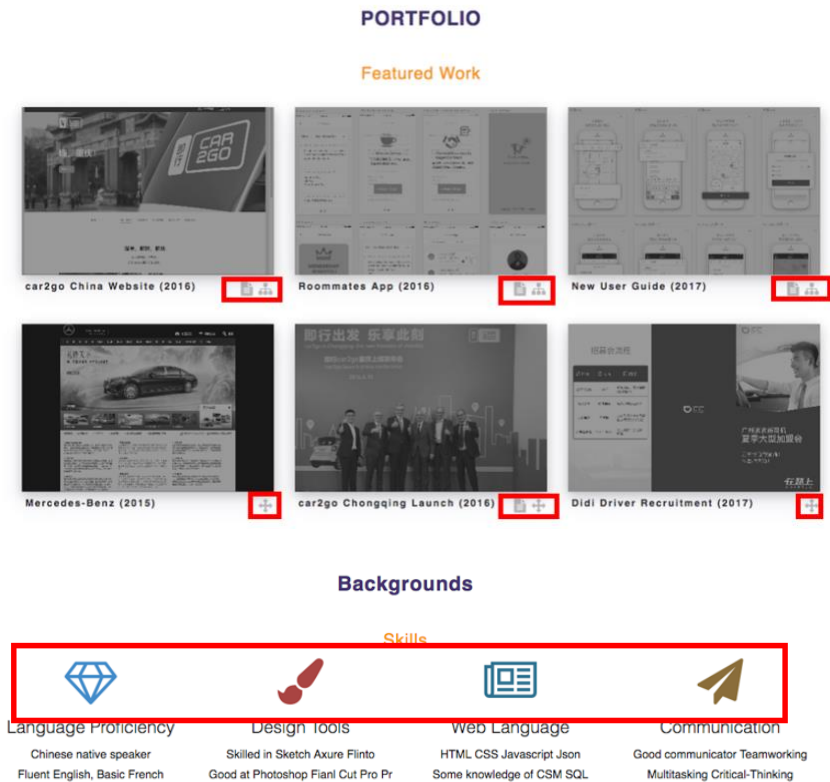
Figure 13: Icons applied into the website

7. Test

7.1 Usability Test

As useful website is mainly about utility and usability, I need to find out whether my website is easy for target audience to use its features or not. Therefore, I do the qualitative test (usability test) to improve my website user experience.

From Nielsen, usability test need to test 5 users, which is enough for designer to find as many as usability problems as he'd find using many more test participants. Besides, there are 10 guidelines of web usability principle according to Brinck, Gergle& Wood

"Usability for the web: Designing website that work", that is, Content & scope, Speed, Navigation, Appropriateness to task, Visual design, Compatibility, Simplicity, Consistency & contrast, Error handling and Respect for users. With those theories in mind, I invited 5 friends, who are working or have ever interned in the internet company. The tests lasted 10mins with five participants individually. Three participants used Chrome, the other two used Firefox and safari to browse my personal website in the test. At the beginning, I gave them about two minutes to get familiar with the layout and structure of the whole website. The goals were to test participants whether they could find where to download my pdf version website and check out the portfolio work related to the category of copywriting in fixed time or not. After rounds of actions, I finally asked them about the satisfying aspects and problems when browsing the website, I stood next to them to record their performances and comments.

While all participants said my website had a good layout and flat design, which catered to the trend recently. They loved this clean and uniform one-page website, and some animations made by JS plugin indeed attracted their attention, making the website interact with visitors. In addition, the Chinese version is good and considerate for recruiters from the mainland China.

However, there are some problems that they reported to me when exploring the website.

Problems in Usability Test	Expected solutions
The Speed of website loading is slow	Compress media &improve the speed.
Too much information is displayed in the internships part, make it hard to read.	Delete the part of companies' introduction, then highlight keywords

Color palette is annoying (green, purple, orange).	Reserve the dark purple as the main color for the page, then use orange to the focal points (button).
Some elements of Website lost and it was incompatible when open in safari and Firefox.	Do more tests in different browsers and fix the bugs.

Fortunately, all five participants manage to achieve the goals I set up. They found icons that help to categorize my work and clicked the button "Download Resume" in the About section.

One participant noticed that my website content was uploaded through Drupal, so he asked me about my backend construction. I have confessed I just used the Drupal to make my contact form information. He suggested that I should activate my database and back-end building, only in this way, my website can be flexible to update new projects and experience continuously. Besides, two participants implied that there was in lack of a focal point(button) in my Home section, which was unfriendly for visitors who browsed into my website for the first time without any goals in mind. Thus, they suggested I should add the main task button "View my portfolio" and "Download Resume" into the Home section, providing an obvious guidance for visitors.

7.2 A/B Test

I have collected some useful and constructive suggestions on improving my website from usability test. To figure out whether it is worthwhile to add two new buttons on

the Home section advised by the participant in the previous usability test, I decided to

conduct the quantitative test, A/B Test in Google to find more in-depth data.

Considering the advice by participant in usability test, I did the A/B test by making

some changes on variant 1

(1) Adding the button" View my portfolio" and "Download Resume" to the Home

    section in order to increase the duration session that people stay in my website, and

    could find the task when they browse my website. Hence, I supposed that there will

    be a great possibility that they click the button to download resume directly.

(2) Highlighting the link "language change" with the orange color at the right side of

    the navigation bar, telling visitors that it is a bilingual website, especially for
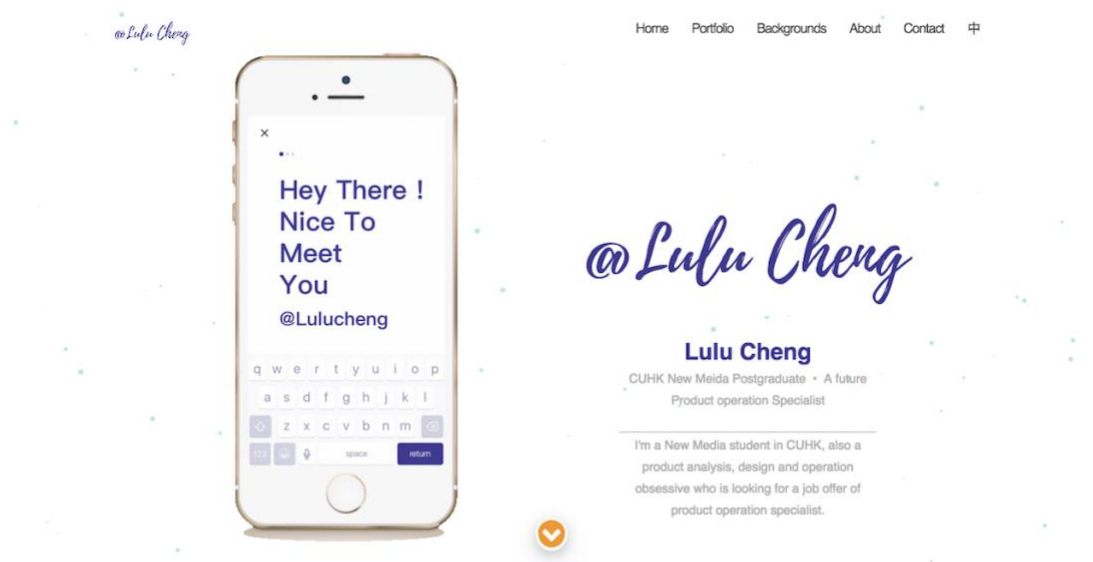
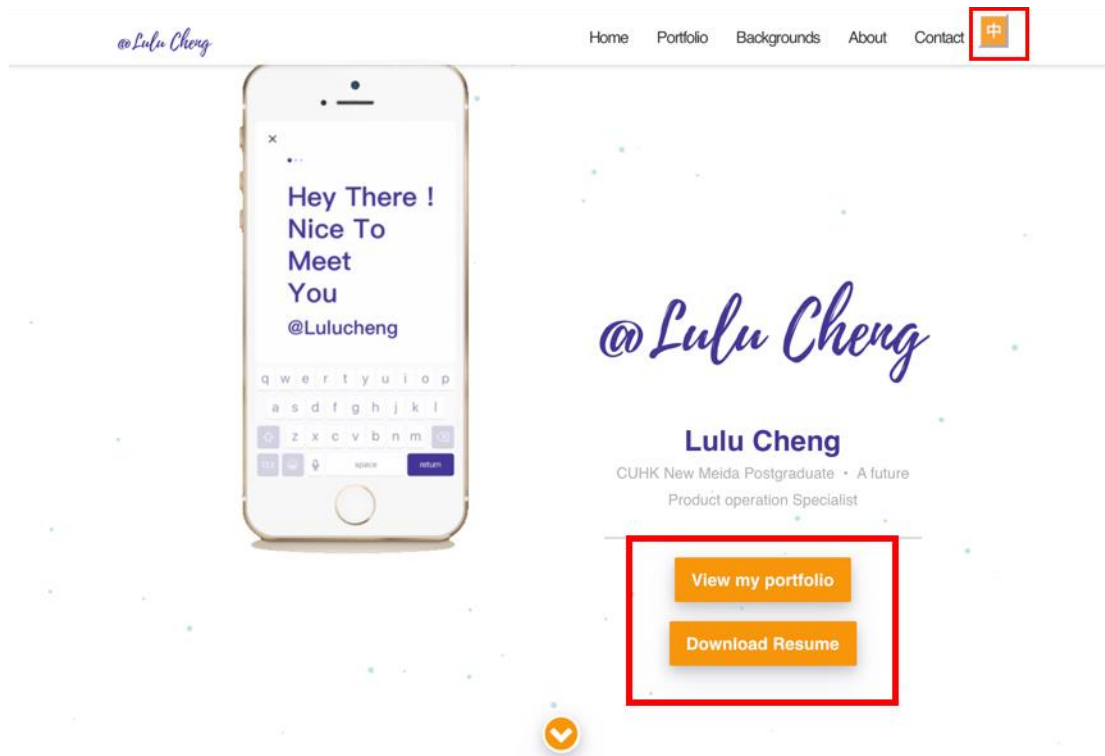   mainland China visitors.

Figure 14: A/B Test-Original

Figure 15: A/B Test-Variant 1

Due to the time limited, my A/B test only last three days (from 8th to 11th December).

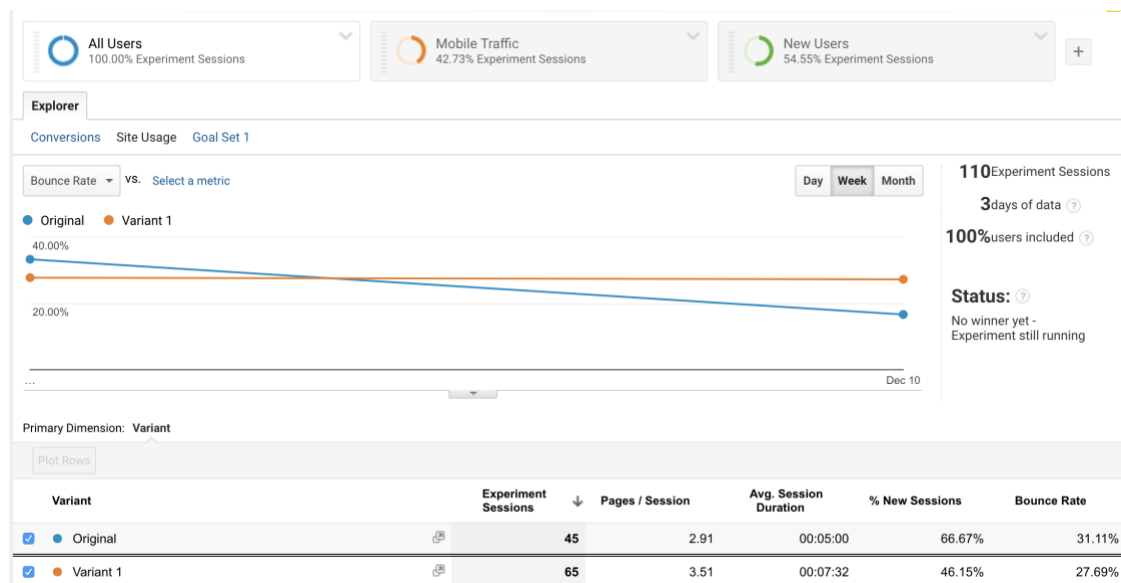According to Google analytics, it's advisable to run the experiment at least two weeks.

Figure 16: Updated Results about A/B Test

According to the current experiment results, it is found that about 54.55% of the experiment session are new users, around 42.73% of them opened the website through mobile instead of desktop. More importantly, the Variant 1 has a lower bounce rate (27.69%) than original version (31.11%), which indicates that people who browse the variant 1 page, would like to continue to view my site. From the above figures, I found variant 1 had a long average session duration (07:32) compared with the original one (05:00). It may infer that buttons "View my portfolio" and "Download Resume" in the Home section remind people of viewing portfolio at the beginning, getting involved in website content. Instead of scrolling down directly, they spend much time in the website with a clear task or goal in mind.

	Variant ↑	Improvement	Probability to be Best	Probability to beat baseline	Conversion Rate		Conversions
✓	Original 45 sessions	Baseline	58%	Baseline	0.07%	9.08%	0
✓	Variant 1 65 sessions	-98% to 2,737%	42%	42%	0.05%	6.70%	0

PDF Downloads (Goal 2 Completions) ▾
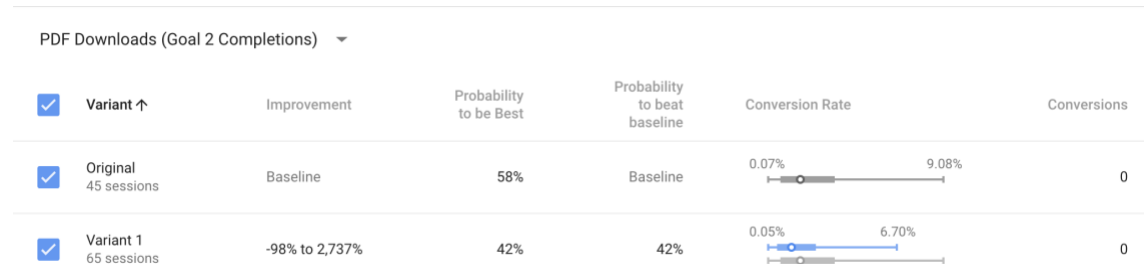
Figure 17: Goal 2 for Resume downloads from Google Optimize

According to the report from Google Optimize, it's said that the original version is probably better than the variant 1 version (58% vs 42%), which is contradicted with my presumption that adding the button "Download Resume" on Home section will increase the downloads of my resume. It may indicate that whether people download resume or not doesn't have a significant relationship with the position of button. It is related to their goal when browsing your website at the beginning. Since most of visitors are

friends or families who come to my website referring to the link I share with them, the test result may not be so representative.

Outbound Click to Language ▼					
Variant ↑	Improvement	Probability to be Best	Probability to beat baseline	Conversion Rate	Conversions
Original 45 sessions	Baseline	39%	Baseline	23.75% 55.45%	17
Variant 1 65 sessions	-37% to 91%	61%	61%	28.16% 56.54%	26

Figure 18: Goal for "Click to change the language" from Google Optimize

There is a better performance for the Variant 1 version (61% compared with 39% in Original version) about the evaluation of clicking the language change link. We could conclude that visitors have noticed the Chinese version entrance with orange color on it. In addition, it corresponds to the composition of visitors, 58.15% of them come from mainland China. Most of them will click the link and move to the Chinese version.

As the experiment is still running, all the data collections are based on three days experiment outcomes.

8. Dashboard Design

After doing the quantitative and qualitative tests, it's time to design a dashboard on Google Analytics to have insights into how visitors interact with the website. Distinguished from the A/B test which focuses on the variant elements to find out the optimal design, dashboard on Google analytics helps collect metrics and dimensions to quickly visualize the data about the website and future investigation, playing an important role in gathering widgets over time from different levels, including user

demographics, acquisition, behavior and the conversions.

Figure 19: Customized Dashboard from Google Analytics

As for the measurements of personal website, I added 10 metrics to the customized dashboard. I identified the users (new and returning visitors), where they came from and the device they used to browse my website. From the infographics on the left side, most of them come from mainland China and Hong Kong, who browse my website through mobile for the first time. Hence, I am supposed to highlight the function of changing language to target users and focus much on the content and layout displayed on the mobiles, making it responsive and well-designed. Then in the middle of the dashboard, I pay attention to behaviors of visitors, including the page view, the session duration, their exits and bounce rate. With those metrics, I find that my website still has a high bounce rate (40.48%), due to the one-page design of my website. Visitors don't need to spend much time in clicking various links, just scrolling down instead. Without the multi-pages to monitor the visitors' behaviors, I added some events through Google Tag Manager to the behavior sections. However, those events are failed to display on the customized dashboard. In the following screenshot, there are three main events to monitor user behaviors, namely, Scroll Depth, Download Resume (PDF) and Click Outbound links on my website, especially the link about "change language". I divided the scroll depth into five levels, including 10%, 25% ,50%, 75% and 90%, which are consistent with the division of sections on my website. For example, they scroll down to the 25% of the whole page, where there is the cut-off point between Home and Portfolio sections.
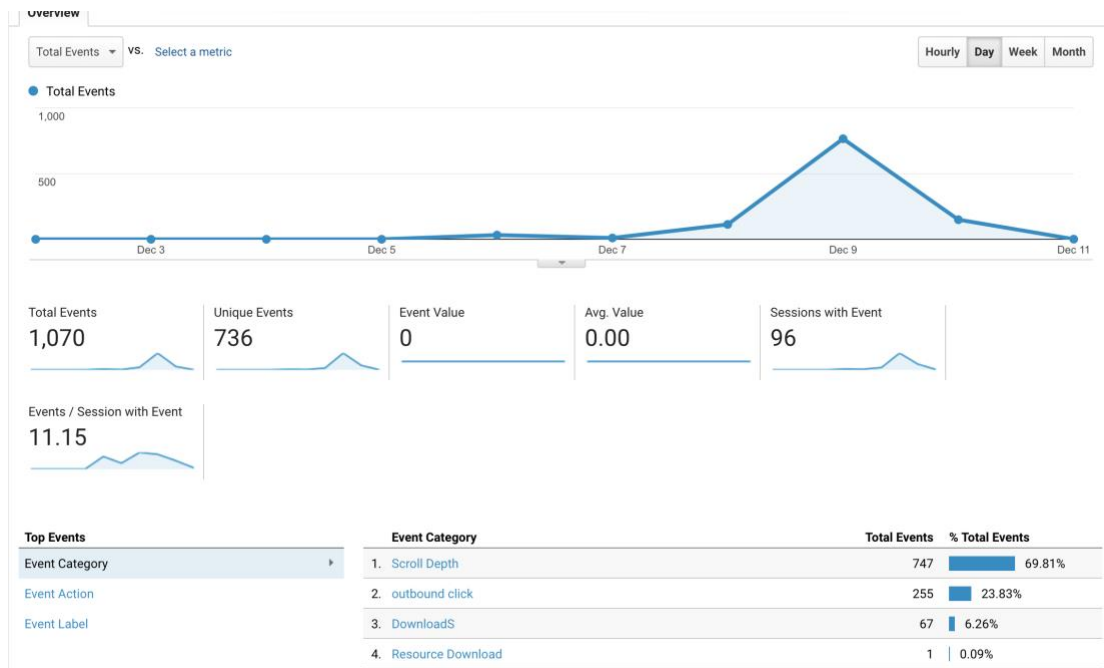
Figure 20: Events for monitoring users' behaviors

Specifically, most of visitors scroll down to find my personal backgrounds, and there is slight difference between the different section. And the Home section acquire the most attention. Furthermore, with the downloads pdf link and outbound link events, I manage to find most of visitors would like to interact with my website content, therefore they change the language and click the buttons. In fact, my website goal has achieved.
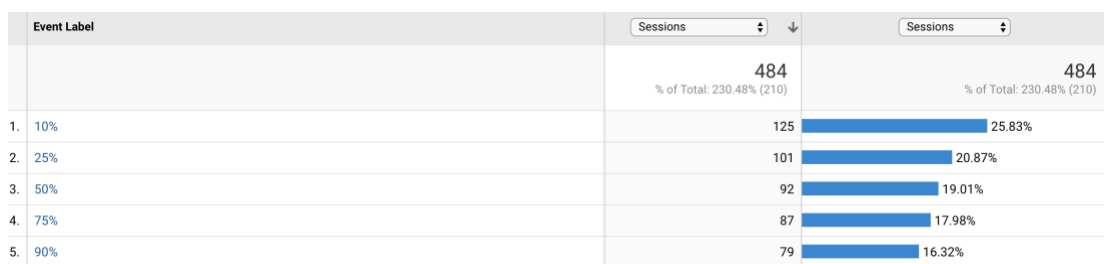

Figure 21: "Scroll down" event

Speaking of row on the right side of dashboard, there is a goal about duration I set up

before the test. To increase their acquisition and retention, I check out their duration session within five minutes. What surprises me is that a large number of visitors stayed for long to read the details of my portfolio and interact with the website, which are the main goal I want to achieve in the strategy plane.

9. Conclusion

All in all, there are some imperfections in the process of the web design. I didn't set up a database for my website on Drupal due to the time limited. Drupal and other CMS are necessary as it can become a regular base to update website contents for convenience. Secondly, the A/B Test runs for three days, it is advised to run at least two weeks. Therefore, the results may not be representative and convincing to some extent. Thirdly, most of samples and traffic come from friends and relatives rather than the real recruiters. It indeed affects the test results.

Luckily, I do learn and experience the whole process of website design from setting up the objectives to doing test for several times. I also exert the knowledge and skills into website design. I will keep updating and improving my website to create the friendlier user experience.