

SE 494

Spring 2018

Portfolio Narrative Assignment

Due date: Feb 25, 2017

Submission of portfolio project descriptions via Canvas

Recall the description of 3 projects to be included in your portfolio: Minimum of 3 Individual or Group Projects from classes/lab

1. Emphasize design processes and show final designs or application
2. Define skills/tools acquired in all your examples
3. Submit one paragraph narrative per project

Projects:

1. Principal Data Scraping project:
 - a. The design process was rather short for this project as we only had a week to build the product and a few weeks beforehand to plan. Our task was slightly ambiguous in that the client knew what they wanted but they were open to ideas for how we got there. We met as a team in the weeks leading up to the to brainstorm ideas, determine team roles, and discuss our plans with the client. After confirming with the client that the way we wanted to implement the solution would in fact accomplish everything they were looking for, our team researched the technology and waited for the week to approach.
 - b. The biggest skill that I acquired during this project was the python language, as well as how to effectively do data scraping on the web. Other tools that I was exposed to was IBM's Bluemix, the python library Flask, and how to work with NoSQL databases. The project as a whole was very new and I gained a lot from it, as you can see from the laundry list of new technologies I worked with and skills I gained.
 - c. Every year, Principal conducts a code jam where they take all the IT interns and put them into teams of six. Each team is then given a project and they have four days to complete it, after which all the teams give presentations on their respective projects. My team was tasked with creating a data scraper for a team in the Principal Global Investors division. They wanted us to find news articles that were relevant to business openings and closings, store that information in a database, and then display it in a web application. I did not know python before we started this project, so I had to learn it quickly and then was able to create the data scraper for our team. After the teams gave their presentations ours was recognized as one of the top three teams, in no particular order. Towards the end of the summer we had a meeting to hand off the project to a

full-time team at Principal that would be able to finish a production ready version of our project.

2. 319 android app:

- a. The android app I worked on in ComS 309 was unique because I had not worked on a semester long project before, all my course assignments had been week long homework assignments or projects. Our team used the agile methodology and two-week sprints when designing this project. We started the semester by brainstorming the different technologies we could use to complete our goals. After we had ideated the necessary tasks need to complete our goals, each team member got a role and worked in each sprint to make progress in their individual focus area.
- b. Before this project I had never used Android Studio and had never done any type of app development. Throughout the course of this project I learned how Android Development is done and, as the app lead on the team, I learned the ins and outs of how to make an Android Application.
- c. I worked on a team of four to build a song sharing app in my ComS 309 course. We allowed users to select songs and share them over wifi peer-to-peer with other users.

3. Desired States Configuration project:

- a. The Desired States Configuration project had the biggest team of any project that I have worked on so far in my career. The team for this project consisted of 13 other interns which gave it a unique design process. The team consisted of front-end devs, back-end devs, BA's, and security analysts. The BA's would communicate with the stakeholders and relay that information back to the developers to design the project. The goal for the project was not only to build something useful to employees at principal, but also to give us an idea of what the development cycle was like in the real world on large projects.
- b. I learned how to delegate tasks and stay productive on a large team. I also gained some knowledge on how back-end development takes place, though I still have a lot to learn in that regard. I found out how important it is to start early on projects and that solving roadblocks for team members early is very beneficial. One big issue our team ran into was having permission to access the database, which took time emailing and asking nicely to resolve.
- c. My second project at Principal was to create a web application to host settings for desired server states. I worked on this project with a team of 13 other interns split up into various roles. I worked on the front-end team for the project, using html and JavaScript for the most part, as well as a Principal specific bootstrap framework. I also took the lead in connecting the front-end and back in towards the end of the summer using php. We managed to create a product that was a major improvement over their previous solution. After the interns left for the summer Principal assigned a team to our project to expand on it which was their plan at the start of the summer.

4. Principal IT business object:

- a. The design process for this project was very realistic for what I would find in the professional field, which was a nice change of pace from school projects. Another intern and I were trained with the technology we would be using and then met with the product owner to discuss the constraints and goals of our project. Next, we brainstormed ideas and were able to take the lead on the project with some minor guidance from our mentor. Throughout the summer we were able to iterate between designing, prototyping, testing and getting feedback until we landed on the final product.

- b. Most of the skills that I learned from this project were related to the design process at a big company, how to interact with clients, using the agile methodology, and being a leader on a team. I also learned some useful skills related to working in a codeless environment which was new to me.
- c. Over the summer I redesigned and developed a business object for the ITSM and ESM support team. I worked with another intern to communicate with the product owner about the various business requirements and implement them in an intuitive way. After some training in how to use Principal's software and brainstorming for what should be included we were given the freedom to work on the project for the summer. The other intern and I delegated tasks and managed our time between working on this project and our other projects.

The most exciting thing for me on this project was that it was a codeless project which was not something I had been exposed to before. In addition to that learning curve I worked in an Agile environment and worked on a team with experts in the field. At the end of the summer I worked with my mentor to put our project into production and was able to experience other people at the company use what I had been working on.