Software Engineering Internship at Hologic, Inc.

Background

Name: David Manzano

Company Name: Hologic, Inc.

Project: Development Partner Web Application

Product: Medical Diagnostic Tools/Machines

Start Date/End Date: 6/13/2016-8/26/2016
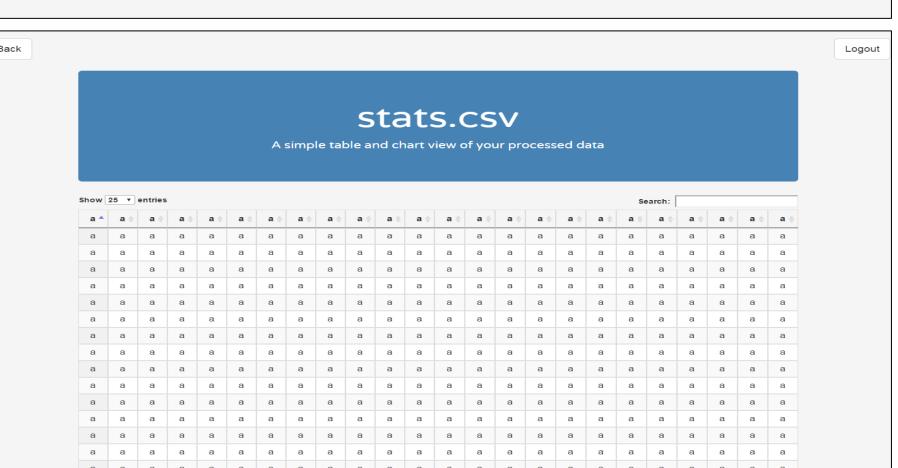
Location: San Diego, CA

Key Achievement

The key achievement and highlight of my internship was working on and completing the main project the other software engineering interns and I were assigned. This project was essentially a culmination of all the different technologies, languages, and projects we had been working on at Hologic, Inc.

The project was a Development Partner Web Application with the purpose of producing helpful diagnostic data trends in the form of charts and tables so that developers could identify different anomalies in the product at runtime. For this project we utilized Mongoose, MongoDB, Node.js, Express.js, Bootstrap, JQuery, Jade, JavaScript, and CSS to design and implement a working web application. It was a laborious process learning the different technologies and then using them to implement the application. The most important parts of the process included setting up and using a database for user information and uploaded data, implementing a data parser, plotting parsed data on a graph, displaying pasrsed data in a data table, implementing an administrator user, and implementing a work processor to manipulate data in the database.

Before I started this project I had no knowledge of any of the above languages/technologies and I am especially proud to have learned and designed the app with each of them.

Connection to UCSD

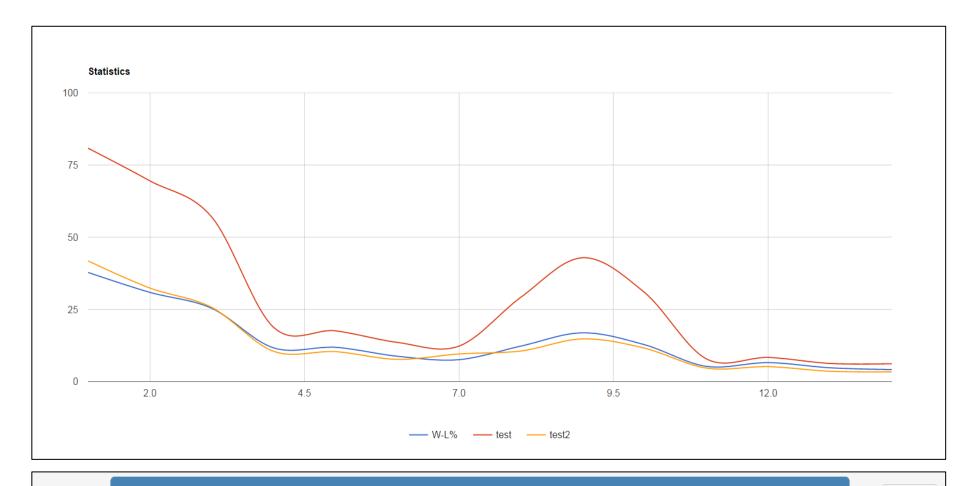Some of the most helpful classes I have taken at UCSD in preparation for working in industry are as follows:
- CSE 110 (Software Engineering)
- ENG 100D (Design for Development)
- CSE 120 (Computer Operating Systems)
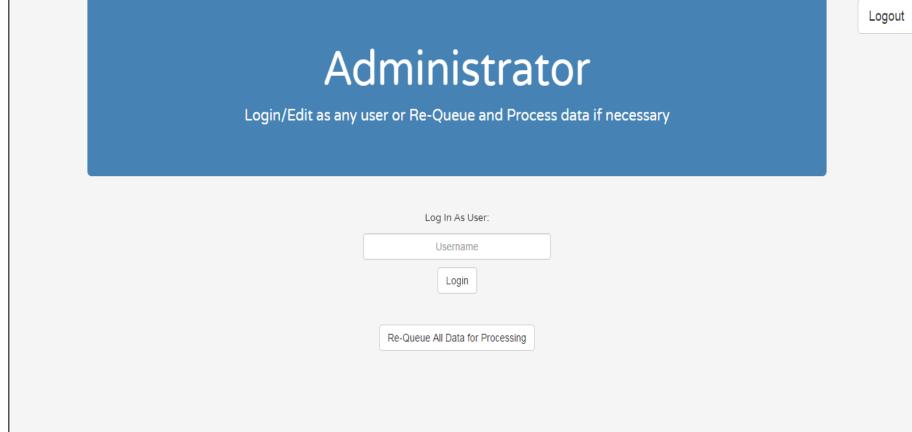- CSE 130 (Programming Languages)

I used my knowledge of the software engineering process from CSE 110 and design techniques from ENG 100D to aid in the planning and timely implementation of the application
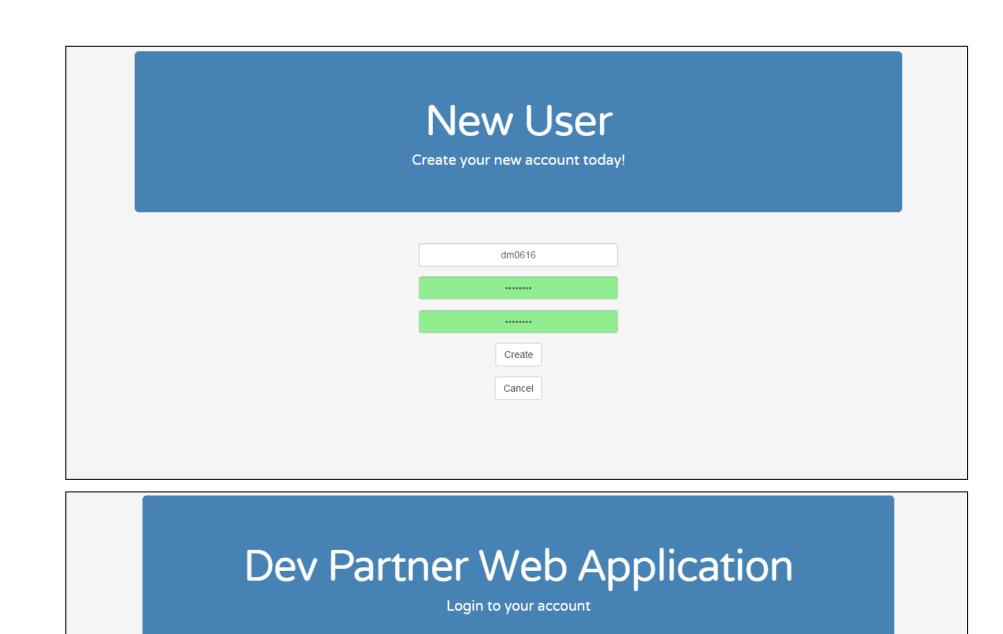
I used my knowledge of multi threading and caching from CSE 120 to help optimize the runtime of the application

I used techniques to understand and learn new languages from CSE 130 to help myself learn and understand the different languages and technologies I was assigned to work with

When I return to UCSD I will bring with me my newfound knowledge of web application development as well as my experience in the following languages and technologies: NodeJS, ExpressJS, JavaScript, CSS, Jade, MongoDB, Mongoose, AngularJS, Bootstrap, JQuery