Title for Project: Advanced Scanners

Group Name: None

Students' Names: Allyson Morgenthal

E-mail addresses: allymorgenthal@utexas.edu

Course: CS 329E - Elements of Web Programming

Instructor: Dr. Shyamal Mitra

Date: June 20th 2018

This summer, in addition to taking this class, I’m interning for a medical device start up. The company is called Advanced Scanners and is developing a 3D scanner to create an interactive representation of the brain for neurosurgeons to improve accuracy. I’m a neuroscience major at UT and completing the elements of computing certificate so this internship was a perfect fit for me. I’m able to interact in the healthcare field while improving my coding skills by coding elements of the scanner. I want to use my final project to make a website for the company since I’m so passionate about seeing this company’s success. I care deeply about sharing the work the company is doing as well as the successes we continue to have. This company and its product has the ability to change the lives of those who have to have brain surgery by making it more accurate than ever before. During surgery the brain experience a shift due to the changing pressure and fluid around it. Current technology doesn’t account for this shift and uses pre-surgery MRIs to guide the surgeon’s tools. Our scanner would create a live tracking system which would greatly improve the targeting of the surgeon. This technology is an essential next step in improving the neurosurgical process and thus the lives of those who have to experience it.

My website will include an opening page with some background information about the company and our goals. There will also be a contact page as well as a update page with our recent accomplishments. These features will obviously include HTML pages and CSS pages both of which will validate. I will need JavaScript code for buttons and other interactive features. The company update page will include pictures and videos as well as links to the websites of the competitions we’ve participated in. Since the website includes an interactive contact form PHP script will be required to process the user inputted data. I will track cookies to make the users experience more personalized for the next time they visit the website. I will use the MySQL database to store and process user information and image loading. Finally, I will use AJAX to improve the speed and interactive capability of the website. It is so important to have an easy to use website so people don’t get frustrated trying to find the information they need. A well thought out website so key to a successful company and I hope to help my company by providing this crucial element.