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Professor Shankar

**Independent Research Study: Learning to Ride Ruby on Rails**

Over the course of this semester, I was presented the greatest opportunity to pursue the most practical educational experience that would complement my entrepreneurial mentality. Professor Shankar offered me the chance to learn Ruby on Rails, a programing framework that uses both Ruby language syntax and a Rails framework (application that incorporates a directory of files) to prototype and build web 2.0 applications. While I had prior web development experience from Shankar’s web technologies class and programming from Gordan’s problem solving and software design class, this independent research study was not an easy task. I used many outside resources from professionals in the field of web development to web APIs to many online tutorials. The most difficult part of this assignment was learning the theory and functionality behind Ruby on Rails before even getting to see the instant gratification one might get from finishing a research paper, editing a video or even earning a grade after an exam. After 3.5 months of intense practice and independent learning, I have reached my goal in being able to build a dynamic web 2.0 website that can function as an information system, online retail space, or even social network. More importantly, I have grown a passion for the web industry and web technology. This independent research study has not only been the most useful Babson class, but also one of my most inspirational ones too.

During the course of my study, I learned how to install and setup the Ruby on Rails framework on my computer as well as manipulate the framework to create a variety of web applications. As outlined in my proposal, my final project was to build a social network/information system that would be applicable to the business world. I am proud to say that I have successfully understood Ruby on Rails to the extent where my final project implements all of the features I set out for. Important concepts learned during my study include understanding a Model-View-Controller, Unit testing, server side and client side coding. Understanding model-view-controllers is the most important concept when trying to use Ruby On Rails Web development. In summary, it is a 3 prong approach to developing any website that stores dynamic information. It begins with the View in which a client is interacting with and then actions are sent to the controller where the framework decides what web pages or information need to be reshown to the user. The controller interacts with the model in a way, which stores and pulls information off of a database to display on a particular view. In theory, a model-view-controller is like a computer. The view is the monitor, the controller is the CPU and the hard drive is the model. This makes perfect sense when relating it to the web industry because the web browser is like a monitor (displays user interface), the application is the CPU (processes information) and the server is the hard drive (stores information). When programming any application, it is most efficient creating these three purposes because it is a clean and organized way to program what ever it is you want.

In building my final project, I also learned server side programming involved with communicating with databases like MySQL. This is very important because it is the storage for any information that your web application may hold. For example my final project includes various user accounts, user information, and even micro posts that must be stored for later use or whenever a user requests that data. Overall, I am very satisfied with my final project because it turned my educational experience from the theory behind information systems to the actual practice of building an information system.

The most difficult part of this independent study is practice and initiative. I only recommend independent studies of this similarity to students who are highly motivated and resourceful. These kind of studies not only require a student to learn on his own, but construct a curriculum and strategy in which he can learn at a pace that is fast enough to reach his or her final goal. Despite the difficulties and obstacles faced during this study, picking the right faculty advisor should be highly considered. Professor Shankar is well versed in many programming languages as well as has an in depth knowledge in computer science. Any one looking to do a similar independent research project of this caliber should consider him as your faculty advisor, but at the same time what you learn and what you take from this study is only evident by your own work ethic.