Computer Science Senior Field Project: Fall 2015 Update

The Brandeis Computer Science Field Project places a team of 3-6 Cosi seniors and/or grad students with an outside organization to do a project with and for them. It offers an opportunity for organizations to bring in a small, highly motivated, team of young people to attack a project or problem that has been lying fallow for one reason or another.

For the students, unlike an internship, it is an opportunity to work very independently, applying their Computer Science while at the same time learning how to work in a highly independent team and build a professional business relationship with an outside organization. This flyer provides an update on the projects ongoing during this Fall of 2015.

Demandware, Inc. - In Store Shopping Experience

As part of Professor Pito Salas’ Cosi Senior Field Project, a group of Brandeis students is collaborating with a team of software engineers from Demandware, a Burlington-based e-commerce company, and creating a consumer mobile application that would assist shoppers and enhance their shopping experience in brick-and-mortar stores. This app would provide an omni-channel shopping experience (the ability for a customer to interact with the store across multiple online platforms) packaged in one app.

The Brandeis team: Jing Zou, Wesley Wei Qian, Brian Luk, and Shimon Mazor, are collecting market data and are coming up with the different features that should be included in the design of such application. The team incorporates cutting-edge beacon devices, a location-based technology, that allows customers to carry a digital print and connect with the physical store.

City of Boston - Office of Food Initiatives - Food Trucks

The City of Boston has currently about 80 food trucks running. The department dealing with food truck processes is doing most procedures manually. This is prone to human error and requires a lot of time and effort. When we first approached the project, we tried to
examine the food truck industry from bigger to smaller scale. We started with research and learning about the way other cities manage their food trucks. We were introduced to the food trucks customers, culture, constraints, and challenges.

After further analysis we decided to focus on one of the biggest challenges in the Boston Food Truck sector: scheduling. The scheduling is mostly controlled by the lottery process—annually and quarterly. Most shifts allocations are made during the long, in person, annual lottery.

Therefore, we thought a web app could make the process easier, faster, more convenient, and perhaps in the future even remotely. We are using HTML and CSS for the front end and JS, JQuery, JDBC and Java to connect with our back end database system.

We hope to give a better lottery and scheduling experience for both the food truck owners and The City Of Boston. In addition, we are building a structure that is flexible for future improvements.

**City of Boston - Mayor's Commission for Persons with Disabilities - Wayfinding**

The Trip Planning team is working with the City of Boston Mayor's Commission of Persons with Disabilities to create a standardized dataset with the long term goal of providing a navigational tool for people with disabilities.

This tool will load all of the ramps and barriers in the city of Boston into the application, and use this data to provide the most efficient and barrier-free path.

The image shows the proof of concept that we have been working on. It illustrates how adding on Beverly the application reroutes, showing a new, barrier free path of transport.

With this application, people with disabilities will be able to efficiently plan their routes, without worrying about obstacles in their transit, without fear of being unable to traverse the suggested path.

The big vision of this project is for us to design a robust data format and schema that can be adopted by all cities in the USA. The City of Boston, with our help, has already begun this outreach and it is leading to fruitful discussions.