Ever needed to find something out about a University you were visiting? Ever been on a guided tour where the tour guide really did not have a good answer to your questions? No more! Our final project enables individuals the ability to not only make their way around SMU campus, but also learn interesting facts about SMU and have any questions about SMU answered on the spot by an IBM Watson powered tour guide. Our app makes a fun and engaging experience for potential students, current students, and alumni of SMU to explore the campus and find out facts about the university using plain language questions. How many other Universities can say that?

When the user opens the app, they can see buildings around them so they can easily find their way around campus. At the same time, they are able to take pictures of things around campus such as statues, fountains, or the seal—anything that might pique their interest—and the app can tell them more information about it. The app uses custom image processing to recognize a number of different images (at any scale or lighting) and then queries IBM Watson for more information about the image, such as telling subjects how to use the emergency beacons or more about the SMU seal. Furthermore, this capability is also integrated into a scavenger hunt to facilitate exploration of the campus—try to collect all the images around campus if you can! For those new to campus, this can be an immersive experience that allows them to learn about all the features around campus—but even soon to graduate seniors have used the app and found out something they didn’t know.

The user can also switch to a different tab view that allows them to enter any question about SMU that they want answered. They really can ask anything and get an acceptable answer! Ask about financial aid, how many students SMU has, campus life and events, academic rankings, sports, history—you name it, we trained the system to handle it.

This app builds upon several labs from Dr. Eric Larson’s class on Smartphone Sensing, Interactions and Learning—we chose this as our final project for the course. We use

Figure 1 – IBM Watson question and answer interface. Ask anything you want about SMU.
machine learning to create an image model of things around SMU. We train this model by taking pictures of interesting things around SMU, including the GPS location of the phone when it took the picture, the compass information, and the time the picture was taken. We also use IBM Watson to provide relevant information about the things the user takes a picture of (with seeded questions that we know from the picture—they can evolve over time as Watson learns more about the campus).

We are very excited to offer visitors to SMU a chance to take out their mobile phones and get exploring on the SMU campus.

Interested in trying out the application? We are planning a role out of the application for guided tours of SMU in the future. When its ready, we will have a public release. Special thanks to Professor Larson for all his time and help in setting up the machine learning and cognitive computing systems in the app.

Figure 2 – Scavenger Hunt interface displaying the original and matched picture, as well as an information snippet about the content in the picture.

Figure 3 – The user interface flow of the application, our main storyboard for the app.