

## Mr. Bear Project Summary

### Overview

Envisioned as an interactive guide to the University of Alberta Campus, Mr. Bear is a mobile app which combines location finding and information delivery with an easy to use interface. The app serves as a personal tour guide in that it can direct new visitors, as well as inform users who are interested in the campus and its points of interest. Given the ubiquity of cameras on modern smartphones the system will match images of campus buildings taken by the user. This will be supplemented with traditional GPS to more accurately determine user location than was previously possible given GPS alone.

Additional features include the ability to search for buildings by name, as well as an augmented reality mode. The search feature is seen as a useful tool for those users who are either moderately familiar with the campus, or who have been given a destination and need to be directed there. The augmented reality mode will list building names in real time as the user views them through their devices camera. It is included not simply as a novelty, but also for the tourist who may be looking for something to pique their curiosity.

### User

The app is largely targeted at two groups of users: lost students and tourists. The lost students are likely first years or graduate students new to the campus environment. For them the app acts as a digital locator, helping them quickly find where they are and where they need to be. Previous tools suffered from the low accuracy of GPS location finding on campus grounds. Mr. Bear seeks to provide a tool specialized to the university environment.

As the university has recently celebrated its centennial there is a great deal of interest for a potential tourist. The system makes it easy for these visitors to access the wealth of history available. By moving about the campus grounds the visitors can view detailed information about each of the universities buildings, 145 on the north campus alone. Eventually it is hoped that the system can be expanded to provide information about interesting sites inside each of the buildings as well.

### System Usage

The user will interact with the system via their smartphone. Initially development is planned for Android operating systems, with the addition of an iOS equivalent at a later time. The system is completely scalable, as the mobile app can be used almost unchanged if a more robust server is required for a larger user base. Because the system does not require any specific hardware beyond GPS and camera the app will be usable by older generations of Android Phones. Ease of use and speed are key components of Mr. Bear. After launching the app users will have the choice of either taking a picture or searching by building name, and can switch between modes at any time. A pared down interface gives the user access to all of the systems functionality, without being overwhelming. The end goal being a user experience which is useful on the go, or for extended periods.