

## LOST: Second Progress Report

LOST is a project that aims to provide the user with their location inside of King's, using wireless signal strength to pinpoint them. It will culminate in an Android application, for location pinpointing and route calculation, along with a backend for data collection and processing.

### *Progress*

A month into the project, there has been some good progress made – I have developed code for an Android device that will take a Wifi scan, return signal strengths for nearby access points, and can search an SQLite database for matching access point MAC addresses.

Alongside this, I am collecting data to put into a database so that I can deploy the application with a full set of data, which can be search to come to a pinpointed location.

I have also begun to make plans for the extension tasks, and have decided that Ruby might be an easier / more flexible language to develop the backend in, although I will draw a proper comparison of the languages closer to the time.

### *Difficulties Encountered*

So far, the data I have collected is very useful, however – as discussed with my supervisor, there is an issue where one access point will have several similar MAC addresses, which will essentially throw off the location pinpointing. To this end, I am modifying the script that is used to collect the Wifi data so that it contains the ESSID – this will allow me to only use one MAC address for each wireless point without having to form filtering methods for MAC addresses which may cut out legitimately different MAC addresses.