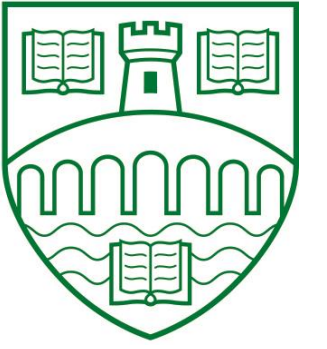


# Development of a Location-based Notification Mobile Application

Michael Coughlan

MSc in Information Technology

UNIVERSITY of  
STIRLING



## Background

- Create an application on the android platform which will allow users to be notified when they leave a location, and to notify other contacts as well.
- The application will be built on the android platform.
- Geofencing technology used for location and notification.
- Android accounts for over 80% of devices available.
- Aim: To have the application communicate with other devices (in the form of a notification or text message) and communication with an external server.

## Design Stage

- Create a prototype application to create and monitor geofences
- Create database tables to hold information about geofences and about user locations.
- Add functionality to allow device to communicate with user, users contacts and database server.



## Implementation

- The user opens the application and selects a number of contacts from their contact list.
- The application uses GPS to determine the mobile's location, then matches this with a list of geofences stored in a table in the database. Using this, the mobile determines which stage the device is in (Enter, Dwell, Exit)
- The application then sends this message and an ID to a PHP file which in turn sends it to a table using SQL.
- Once the user exits the location, a message is sent each of the listed contacts.

