Plant view – an augmented reality android application

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# Introduction

## Abstract

An augmented reality Android application that displays information relevant to the user depending on their location. The application was originally developed for a client that operated on an industrial site, so the data collected would be relevant to their use case, such as the temperature of a pipe. However, the app is generalised enough that it can work with any numerical data set, for example the energy usage of buildings at the university. The data is displayed on a graph to show how it changes over time and analytics are applied to highlight any anomalies.

To find the location of the user, the Android device’s GPS is utilised to allow the acquisition of the device’s latitude and longitude to find the position and the bearing to find which direction it is facing.

A separate Google Maps web application has been developed to allow the mapping of locations against data in an SQL database. Both the Android app and web app communicate with the data sources using Node JS web services. The web services are used to store and retrieve location points as well as pull the data for each location wherever it is stored.

## Rationale