# Week 2 Commencing 23rd January

### Progress Report

This week I focussed on what my Supervisor advised me to do. Initially, I began doing research on pathfinding algorithms, implementing them and deciding towards which would be most appropriate. I then changed my direction towards looking into which APIs I could utilise, getting them running and how I could implement them. That’s the path my Kate led me.

To begin with, I started to learn about APIs, what their uses are, how they work and their implementation. This led me towards taking a few short courses on Codecademy. I decided to strengthen my Python by implementing APIs in Python. Codecademy taught me very well how to use the libraries available to connect to APIs, extract data and take actions on them. I further enhanced my knowledge by making multiple queries using the Twitter API and working on a program that could find common personality traits between two accounts.

I then took this newly acquired knowledge and applied it to the two APIs which I had intended to use: London Air and Microsoft’s Traffic info. I was able to better understand the terminologies and documentation within. Before the end of the working week, I successfully managed to implement both APIs and find measures within the data that would enable me to make calculations towards predicting the level of pollution on a road.

In the meantime, I had a few questions about London Air (Run by Kings College), which I forwarded to the Environment Research Group who kindly co-operated and helped me along with my research.

After completing my implementation and feeling confident in using APIs within a few days, I contacted my Supervisor Kate via email and updated her about my progress. Kate responded with an email which gave me a few things to think about moving forward. This mainly was about the route information that I’d require to create the paths and how I’d take queries from the user.

I began researching about how I could get this route information. It didn’t take me long before I came across several APIs that were offering this type of information. What I did next was start to plan out what it was exactly I was going to need from my route/mapping API for it to coherently work in the bigger picture. This refinement has made the search more difficult and taken it into the following week.