Updating our location data to store distance

MAPKIT

NSDictionary *location

```
{
    "name": "Lake Lucerne",
    "lat": 28.534616,
    "lng": -81.378179
}
```

What we have now

```
{
    "name": "Lake Lucerne",
    "lat": 28.534616,
    "lng": -81.378179,
    "distance": // calculated value
}
```

What we want

One solution

```
NSMutableDictionary *mutableLocation = [[NSMutableDictionary alloc] init];
[mutableLocation addEntriesFromDictionary:location];
double distance = // calculate distance here
[mutableLocation setObject:[NSNumber numberWithDouble:distance]
                    forKey:@"distance"];
```

Adding a distance key to multiple dictionaries

MAPKIT

We may have many dictionaries in `self`.`mapLocations`,

so enumerate through each of them

```objc
for(NSDictionary *location in self.mapLocations) {
    NSMutableDictionary *mutableLocation = [[NSMutableDictionary alloc] init];
    [mutableLocation addEntriesFromDictionary:location];
    double distance = // calculate distance here
    [mutableLocation setObject:[NSNumber numberWithDouble:distance]
                        forKey:@"distance"];
}
```

dictionaries need to store objects

This is a good start, but we're not checking the actual distance!

Calculating the distance depending on the location

get the lat/lng of the current location in the loop into a CLLocation object

```objc
CLLocation *locationToTest = [[CLLocation alloc]
                    initWithLatitude:[location[@"lat"] doubleValue]
                           longitude:[location[@"lng"] doubleValue]];
```

calculate the distance between the current location and the user location

```objc
double distance = [locationToTest distanceFromLocation:self.userLocation];
```

add the distance key with the value from the double variable above

```objc
[mutableLocation setObject:[NSNumber numberWithDouble:distance]
                    forKey:@"distance"];
```