

## **EV Route Planner Final Delivery Report**

### **Purpose:**

Make a route planner for electrical vehicles based on input range or charging type, to avoid the EV owner draining their battery before getting to the next available charging station.

### **What has been Done:**

- A minimum UI for users' input and call Javascript function
- Get your current location
- Generate a route of a certain user specified distance to travel from the start point to the a charging station along the route to the destination(e.g. From Los Angeles to San Francisco, the algorithm will return a route to the first charging station they should stop by, instead of the whole route)
- Hosted Server demo for what we've done:  
<https://www.ics.uci.edu/~jianm6/EV-Route-Planner>

### **What Still Needs to be Done:**

- Design a more effective and efficient UI for both desktop and mobile use
- Set the initial map once open the website to current location
- Retrieve charging station details such as available charger type
- Filter charging stations through user provided specification(e.g charger plug, # of open chargers)
- Input Error checks
- Generate entire route with all charging stations at the set distance
- Send generated route to Google Map for actual usage
- Enhance performance of the algorithm
- If time allowed, can also implement navigation function