



ChattyTrip — A Conversational Trip Planning Tool

Client: iNAGO Inc.

Team Members: Yiyang Sun, Yubo Wang, Yiyang Tang, Xinrui Zheng

Supervisor: Professor Scott Sanner

An unprecedented tool that redefines in-car trip planning experience

Roadtrip is becoming prevalent during the pandemic season. When making trip plans, people are dependent on existing tools like Google Maps to map out routes and explore new points of interests (POIs, i.e.: restaurants, parks, museums, etc.). Nonetheless, Google Maps routes cannot be modified while driving, nor can it provide personalized recommendations of stops along the journey. Users have to manually add stops, making it hard for driving-alone situations. Additionally, manual filterings and searchings do not always lead to a desirable trip plan. Hence, our client, iNAGO, a company that aims to improve in-car experience, is interested in developing a fully conversational tool that provides personalized recommendations. With the implementation of our final tool, drivers can speak to their in-car system about their expectations of the upcoming trip, and leave the system to work on the trip plans until they are satisfied.

A voice-based conversational tool that provides personalized travel recommendations

ChattyTrip is a web application that integrates a conversational system and a recommender system to create personalized routes for the user. To simplify the planning process and free users' hands from manual operations, the team implemented Google's Dialogflow platform, allowing users to communicate with the tool through voice interactions. Having collected and studied users' preferences, the recommender system then automatically recommends POIs between the starting point and destination of the journey to users. A-star search algorithm works behind the scenes. It finds the optimal route between starting and ending locations while detouring to selected POIs along the way. Moreover, the system can react promptly to users' critique on recommendations and adjust the trip plan in time accordingly. Imagine a scene where it is raining outside, the user may say that he does not want to go outdoors, the tool will then replace all outdoor POIs based on this request. ChattyTrip defines a new era of trip planning experience: users can now talk to a planning system while driving. This way, drivers are able to keep their hands on the steering wheel. ChattyTrip will take care of the rest.