AUTOMATIC BOOKING OF TRANSPORTATION BASED ON CONTEXT OF A USER OF A COMPUTING DEVICE

BACKGROUND

A user of a computing device may interact with an on-demand transportation service (e.g., an on-line taxi service) to arrange immediate transportation for traveling between locations. For example, a computing device may generate a calendar alert when it is time for a user to head to the airport. In response to the alert, the user may interact with an application executing at the computing device to book a car for traveling from a current location to the airport. After a brief wait, the car may arrive at a pick-up location and the application may cause the computing device to output a notification that notifies the user that the car is waiting at the pick-up location.

While on-demand transportation services offer some conveniences (e.g., price, scheduling flexibility, etc.), a user still needs to remember to interact with the on-demand transportation service in a timely manner so as to ensure that a vehicle associated with the service will arrive at, and depart from, a pick-up location on-time. Often times, depending on traffic and other unforeseen circumstances, a vehicle may be delayed before actually arriving at a pick-up location. If a user needed to leave immediately (e.g., at the time he or she booked the transportation service), the additional delay can prevent the user in arriving at a final destination on-time.

SUMMARY

In one example, the disclosure is directed to a method that includes inferring, by a computing system, based on information associated with a user of a computing device, that the user will need to complete a trip by traveling from a future location so as to arrive at a future destination by a future time, selecting, by the computing system, a transportation service that the user can use to complete the trip, and determining, by the computing system, a predicted time to request a vehicle associated with the transportation service for completing the trip. A request of the vehicle sent at the predicted time has a degree of likelihood, of causing the vehicle to arrive at the future location by a final departure time, that satisfies a threshold; and the final departure time is a latest time at which the user is predicted to need to begin traveling from the future location to complete the trip and arrive at the future destination by the future time. The method further includes responsive to determining that a current time is within a threshold amount of time of the predicted time to request the vehicle, sending, by the computing system, to a reservation system associated with the transportation service, a reservation request for the vehicle associated with the transportation service for completing the trip, responsive to receiving, by the computing system, from the reservation system, an acknowledgement indicating the reservation request can be satisfied, sending, by the computing system, to the computing device, information for notifying the user that the vehicle is scheduled to arrive at the future location by the final departure time.

In another example, the disclosure is directed to a computing system that includes at least one processor; and at least one module operable by the at least one processor to infer, based on information associated with a user of a computing device, that the user will need to complete a trip by traveling from a future location so as to arrive at a future destination by a future time; select a transportation service that the user can use to complete the trip; and determine a predicted time to request a vehicle associated with the transportation service for completing the trip. A request of the vehicle sent at the predicted time has a degree of likelihood, of causing the vehicle to arrive at the future location by a final departure time, that satisfies a threshold, and the final departure time is a latest time at which the user is predicted to need to begin traveling from the future location to complete the trip and arrive at the future destination by the future time. The at least one module is further operable by the at least one processor to responsive to determining that a current time is within a threshold amount of time of the predicted time to request the vehicle, send, to a reservation system associated with the transportation service, a reservation request for the vehicle associated with the transportation service for completing the trip, and responsive to receiving, from the reservation system, an acknowledgement indicating the reservation request can be satisfied, send, to the computing device, information for notifying the user that the vehicle is scheduled to arrive at the future location by the final departure time.

In another example, the disclosure is directed to a computer-readable storage medium including instructions that, when executed, cause at least one processor of a computing system to infer, based on information associated with a user of a computing device, that the user will need to complete a trip by traveling from a future location so as to arrive at a future destination by a future time; select a transportation service that the user can use to complete the trip; and determine a predicted time to request a vehicle associated with the transportation service for completing the trip. A request of the vehicle sent at the predicted time has a degree of likelihood, of causing the vehicle to arrive at the future location by a final departure time, that satisfies a threshold, and the final departure time is a latest time at which the user is predicted to need to begin traveling from the future location to complete the trip and arrive at the future destination by the future time. The instructions, when executed, further cause the at least one processor of the computing system to responsive to determining that a current time is within a threshold amount of time of the predicted time to request the vehicle, send, to a reservation system associated with the transportation service, a reservation request for the vehicle associated with the transportation service for completing the trip, and responsive to receiving, from the reservation system, an acknowledgement indicating the reservation request can be satisfied, send, to the computing device, information for notifying the user that the vehicle is scheduled to arrive at the future location by the final departure time.

The details of one or more examples are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the disclosure will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF DRAWINGS

FIG. **1** is a conceptual diagram illustrating an example system for predicting a time for requesting a vehicle associated with a transportation service, in accordance with one or more aspects of the present disclosure.

FIG. **2** is a block diagram illustrating an example computing system configured to predict a time for requesting a vehicle associated with a transportation service, in accordance with one or more aspects of the present disclosure.