CLAIMS

1. A system, comprising:

a non-transitory memory; and

one or more processors coupled to the non-transitory memory and configured to execute instructions to perform operations comprising:

receiving, from a first user device, a search request including location data of the first user device and search request parameters;

filtering, using the one or more processors, in response to the search request, one or more databases to determine listing locations within a reservation region that match the search request parameters, the reservation region being based on the location data;

providing a notification to respective listing user devices in response to determined parking spaces within the reservation region being below a first threshold;

automatically selecting a first listing location based on determined listing locations that match the search request parameters, including:

a proximity to a physical location of the first user device;

determined occupancy statuses of the listing locations; and

dimensions associated with the respective listing locations; and

transmitting instructions to the first user device directing the first user device to the first listing location.

2. The system of claim 1, wherein the operations further comprise:

determining an occupancy status change of the first listing location; and

requesting an updated status data set responsive to determining the occupancy status change.

3. The system of claim 1, wherein the operations further comprise:

obtaining location data sets from a plurality of user devices associated with a group of user devices; and

determining, based on the location data sets, that the group of user devices are travelling to a destination within a predefined proximity to a second plurality of listing locations.

4. The system of claim 1, wherein the operations further comprise transmitting requests to second user devices to promote second users to list one or more second listing locations as available for occupation.

5. The system of claim 1, wherein the operations further comprise:

receiving, from a first user device, a departure notification from a first parking location;

determining, by a first parking sensor, an occupancy status of the first parking location; and

updating in one or more databases coupled to the one or more processors an amount of available parking spaces.

6. The system of claim 1, wherein the first user device includes a self-driving vehicle and the operations further comprise causing the self-driving vehicle to proceed to the first listing location using the instructions.

7. The system of claim 1, wherein the operations further comprise obtaining, from a plurality of object detection sensors, status data sets associated with the listing locations, the plurality of object detection sensors including one or more sensors selected from a group consisting of an Infra-Red (IR) light transceiver, an IR distance sensor, an ultrasonic detector, and an imaging sensor.

8. The system of claim 1, wherein the operations further comprise activating one or more cameras associated with the first listing location to capture one or more images of the first listing location.

9. The system of claim 1, wherein the operations further comprise:

determining an event location is associated with a geographical region based on determining a number of search requests for listing locations exceeds a first second threshold; and

providing a notification to respective listing user devices along a route leading to the event location.

10. The system of claim 1, wherein the operations further comprise:

obtaining, from a plurality of object detection sensors, status data sets associated with the listing locations, each of the plurality of object detection sensors including a proximity detector, one or more sensor processors, a sensor communication interface, and a portable power supply.

11. A computer-implemented method, the method comprising:

receiving, on a network interface device, a search request including positional data of a first user device and search request parameters;

filtering, using one or more processors, in response to the search request, one or more databases to determine parking spaces within a reservation region that match the search request parameters, the reservation region being based on the positional data;

providing a notification to respective listing user devices in response to determined parking spaces within the reservation region being below a first threshold;

in response to determining parking spaces within the reservation region that match the search request parameters, automatically selecting a first parking space of the determined parking spaces based on:

a proximity of the first parking space;

a determined occupancy status of the first parking space; and

dimensions of the first parking space; and

transmitting instructions to the first user device directing the first user device to the first parking space.

12. The computer-implemented method of claim 11, wherein the determined occupancy status of the first parking space is determined by querying a parking sensor in a vicinity of the first parking space.

13. The computer-implemented method of claim 12, further comprising capturing, by a camera unit of the parking sensor, one or more images of a parking space area of the first parking space.

14. The computer-implemented method of claim 12, wherein querying a parking sensor is performed in response to receiving a status update from the first user device.

15. The computer-implemented method of claim 11, further comprising:

determining an event location is associated with a first geographical region based on

determining a number of search requests of a plurality of search requests for the plurality of listing locations exceeds a second threshold; and

providing a notification to respective listing user devices along a route leading to the event location.

16. The computer-implemented method of claim 11, further comprising:

calculating a listing multiplier in response to the number of the search requests of the plurality of the search requests for the plurality of listing locations exceeding the first a second threshold; and

providing a second notification including the listing multiplier to the respective listing user devices associated with the plurality of listing locations.

17. The computer-implemented method of claim 11, further comprising:

calculating a penalty multiplier in response to determining a vehicle associated with the first user device has overstayed a reservation period.

18. A non-transitory computer readable medium comprising computer executable instructions stored thereon, which, when executed by one or more processors, cause the one or more processors to perform a method, comprising:

determining an event location based on search requests from a plurality of user devices within a first geographical region exceeding a first threshold number of search requests, the search requests including positional data and search request parameters;

receiving, on a network interface device, route information from a first user device including destination coordinates;

determining the destination coordinates are within the first geographical region;

receiving a first search request from the first user device including positional data of the first user device and first search request parameters;

identifying a location of the first user device based on the positional data;

automatically selecting a first parking space within the first geographical region based on the search request parameters; and

transmitting instructions causing the first user device to be directed to the first user device to the first parking space.

19. The non-transitory computer readable medium of claim 18, wherein the method further comprises providing a notification to respective listing user devices along a route leading to the event location.

20. The non-transitory computer readable medium of claim 18, wherein the method further comprises obtaining, from a plurality of object detection sensors, status data sets associated with a plurality of listing locations, the status data sets being automatically generated by the plurality of object detection sensors based on one or more determinations that an object optically or acoustically obstructs one or more object detection sensors.