

We claim:

1. A system, comprising:

at least one storage medium including a set of instructions for recommending at least one route associated with a request from a user; and

at least one processor configured to communicate with the at least one storage medium; wherein when executing the set of instructions, the at least one processor is directed to:

receive the request from a terminal associated with the user, the request including a departure location, a destination, and a departure time;

determine a Generative Adversarial Network (GAN) model;

determine at least one recommended route for the request based on the GAN model, the departure location, the destination and the departure time, wherein the at least one recommended route travels from the departure location to the destination; and

transmit the at least one recommended route to be displayed on the terminal in response to the request.

2. The system of claim 1, wherein to determine the GAN model, the at least one processor is further directed to:

obtain a set of sample routes;

generate a generative model;

determine a set of estimated routes based on the generative model;

generate a discriminative model;

determine a first loss function of the discriminative model based on the set of sample routes and the set of estimated routes;

determine whether the value of the first loss function is less than a first threshold; and

store the discriminative model based on the determination that the value of the first loss function is less than the first threshold.

3. The system of claim 2, wherein to determine the GAN model, the at least one processor is further directed to:

update the discriminative model based on the determination that the value of the first loss function is not less than the first threshold.

4. The system of claim 2, wherein to determine the GAN model, the at least one processor is further directed to:

determine a second loss function of the generative model based on the set of sample routes and the set of estimated routes;

determine whether the value of the second loss function is less than a second threshold;

and

store the generative model based on the determination that the value of the second loss function is less than the second threshold.

5. The system of claim 4, wherein to determine the GAN model, the at least one processor is further directed to:

update the generative model based on the determination that the value of the second loss function is not less than the second threshold.

6. The system of claim 4, wherein to determine the GAN model, the at least one processor is further directed to:

determine the GAN model based on the discriminative model and the generative model.

7. The system of claim 2, wherein each of the set of sample routes includes at least one of:

a sample departure location,

a sample destination,

link information between the sample departure location and the sample destination,

a sample departure time,

a sample arrival time, or

traffic information associated with the each of the set of sample routes.

8. The system of claim 2, wherein the generative model is one of a Convolutional Neural Network model or a Recurrent Neural Network model.

9. The system of claim 2, wherein the discriminative model is one of a Convolutional Neural Network model or a Recurrent Neural Network model.

10. The system of claim 2, wherein the number of the set of sample routes is 256, 512, or 1024.

11. A method, comprising:

receiving, by a processor, a request from a terminal associated with a user, the request including a departure location, a destination, and a departure time;

determining, by the processor, a Generative Adversarial Network (GAN) model;

determining, by the processor, at least one recommended route for the request based on the GAN model, the departure location, the destination and the departure time, wherein the at least one recommended route travels from the departure location to the destination; and

transmitting, by the processor, the at least one recommended route to be displayed on the terminal in response to the request.

12. The method of claim 11, wherein the determining the GAN model comprises:

- obtaining a set of sample routes;
- generating a generative model;
- determining a set of estimated routes based on the generative model;
- generating a discriminative model;
- determining a first loss function of the discriminative model based on the set of sample routes and the set of estimated routes;
- determining whether the value of the first loss function is less than a first threshold; and
- storing the discriminative model based on the determination that the value of the first loss function is less than the first threshold.

13. The method of claim 12, wherein the determining the GAN model comprises:

- updating the discriminative model based on the determination that the value of the first loss function is not less than the first threshold.

14. The method of claim 12, wherein the determining the GAN model comprises:

- determining a second loss function of the generative model based on the set of sample routes and the set of estimated routes;
- determining whether the value of the second loss function is less than a second threshold; and
- storing the generative model based on the determination that the value of the second loss function is less than the second threshold.

15. The method of claim 14, wherein the determining the GAN model comprises:

- updating the generative model based on the determination that the value of the second loss function is not less than the second threshold.

16. The method of claim 14, wherein the determining the GAN model, comprises:

- determining the GAN model based on the discriminative model and the generative model.

17. The method of claim 12, wherein each of the set of sample routes includes at least one of:

- a sample departure location,
- a sample destination,
- link information between the sample departure location and the sample destination,
- a sample departure time,
- a sample arrival time, or
- traffic information associated with the each of the set of sample routes.

18. The method of claim 12, wherein the generative model is one of a Convolutional Neural Network model or a Recurrent Neural Network model.

19. The method of claim 12, wherein the discriminative model is one of a Convolutional Neural Network model or a Recurrent Neural Network model.

20. The method of claim 12, wherein the number of the set of sample routes is 256, 512, or 1024.

21. A non-transitory computer readable medium comprising executable instructions that, when executed by at least one processor, cause the at least one processor to effectuate a method comprising:

- receiving a request from a terminal associated with a user, the request including a departure location, a destination, and a departure time;
- determining a Generative Adversarial Network (GAN) model;
- determining at least one recommended route for the request based on the GAN model, the departure location, the destination and the departure time, wherein the at least one recommended route travels from the departure location to the destination; and
- transmitting the at least one recommended route to be displayed on the terminal in response to the request.