CLAIMS

1. A system comprising:

at least one processor; and

memory, operatively connected to the at least one processor and storing instructions that, when executed by the at least one processor, cause the system to perform a set of operations, the set of operations comprising:

receiving, from a client device, a request for content of a content distribution network (CDN), wherein the request for content comprises requested format information indicating a request resolution that is different than a resolution of the content;

determining, from a set of transcoding models, a transcoding model to transcode the content;

transcoding, using the determined transcoding model, at least a part of the content to generate transcoded content having the request resolution; and

providing, in response to the request for content, the transcoded content to the client device.

2. The system of claim 1, wherein determining the transcoding model comprises:

selecting a content frame from the content;

downscaling the content frame;

processing the downscaled content frame using:

a first transcoding model to generate a first transcoded frame; and

a second transcoding model to generate a second transcoded frame; and

evaluating, based on the content frame, the first transcoded frame and the second transcoded frame to determine the transcoding model, wherein the transcoding model is either the first transcoding model or the second transcoding model.

3. The system of claim 2, wherein:

determining the transcoding model further comprises recognizing an object of the content frame; and

the first transcoded frame and the second transcoded frame are further evaluated based at least in part on the recognized object of the content frame to determine the transcoding model.

4. The system of any one of claims 1 to 3, wherein:
the transcoding model is a first transcoding model;
the at least a part of the content is a first part of the content; and
the set of operations further comprises:
determining, from a set of transcoding models, a second transcoding model to transcode the content; and
transcoding, using the determined transcoding model, a second part of the content to further generate the transcoded content having the request resolution.

5. The system of any one of claims 1 to 4, wherein:
the client device is a first client device;
the request for content is a first request for content; and
the set of operations further comprises:
storing the transcoded content in a data store;
receiving, from a second client device, a second request for the content; and
providing, in response to the second request for the content, the transcoded content from the data store.

6. The system of any one of claims 1 to 5, wherein the set of operations further comprises:
receiving, from a node of the CDN, a request for the transcoded content; and
providing, to the node of the CDN, the transcoded content.

7. The system of any one of claims 1 to 6, wherein the requested format information comprises at least one of audio requested format information or video requested format information.

8. A method for transcoding content using a transcoding recipe, the method comprising:

receiving, from a node of a content distribution network (CDN), content and a transcoding recipe indicating:

a first transcoding model for a first subpart of the content; and

a second transcoding model for a second subpart of the content;

transcoding, using the first transcoding model, the first subpart of the content to generate a first transcoded subpart;

transcoding, using the second transcoding model, the second subpart of the content to generate a second transcoded subpart; and

providing, to a client device, transcoded content comprising the first transcoded subpart and the second transcoded subpart.

9. The method of claim 8, further comprising:

receiving a request for the content from the client device;

wherein the first subpart and the second subpart are transcoded based at least in part on receiving the request.

10. The method of claim 9, wherein:

the request for the content comprises requested format information; and

the transcoding recipe is determined based at least in part on the requested format information.

11. The method of any one of claims 8 to 10, wherein:

the client device is a first client device; and

the method further comprises:

storing the transcoded content in a data store;

receiving, from a second client device, a request for the content; and

providing, in response to the request for the content, the transcoded content from the data store.

12. The method of any one of claims 8 to 11, wherein:

the first subpart of the content is a video track of the content; and

the second subpart of the content is an audio track of the content.

13. The method of any one of claims 8 to 12, further comprising;

receiving, from a node of the CDN, a request for the transcoded content; and

providing, to the node of the CDN, the transcoded content.

14. A method for transcoding content from a content provider, the method comprising:

receiving, from a client device, a request for content of a content distribution network (CDN), wherein the request for content comprises requested format information indicating a request resolution that is different than a resolution of the content;

determining, from a set of transcoding models, a transcoding model to transcode the content;

transcoding, using the determined transcoding model, at least a part of the content to generate transcoded content having the request resolution; and

providing, in response to the request for content, the transcoded content to the client device.

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

selecting a content frame from the content;

downscaling the content frame;

processing the downscaled content frame using:

a first transcoding model to generate a first transcoded frame; and

a second transcoding model to generate a second transcoded frame; and

evaluating, based on the content frame, the first transcoded frame and the second transcoded frame to determine the transcoding model, wherein the transcoding model is either the first transcoding model or the second transcoding model.

16. The method of claim 15, wherein:

determining the transcoding model further comprises recognizing an object of the content frame; and

the first transcoded frame and the second transcoded frame are further evaluated based at least in part on the recognized object of the content frame to determine the transcoding model.

17. The method of any one of claims 14 to 16, wherein:

the transcoding model is a first transcoding model;

the at least a part of the content is a first part of the content; and

the method further comprises:

determining, from a set of transcoding models, a second transcoding model to transcode the content; and

transcoding, using the determined transcoding model, a second part of the content to further generate the transcoded content having the request resolution.

18. The method of any one of claims 14 to 17, wherein:

the client device is a first client device;

the request for content is a first request for content; and

the method further comprises:

storing the transcoded content in a data store;

receiving, from a second client device, a second request for the content; and

providing, in response to the second request for the content, the transcoded content from the data store.

19. The method of any one of claims 14 to 18, further comprising:

receiving, from a node of the CDN, a request for the transcoded content; and

providing, to the node of the CDN, the transcoded content.

20. The method of any one of claims 14 to 19, wherein the requested format information comprises at least one of audio requested format information or video requested format information.