Prove

Giza provides two methods for proving Orion Cairo programs: through the CLI or directly after running inference on the Giza Platform. Below are detailed instructions for both methods

Option 1: Prove a Model After Running Inference

Deploying Your Model

After deploying your model on the Giza Platform, you will receive a URL for your deployed model. Refer to the [Endpoints section](#) for more details on deploying models.

Running Inference

To run inference, use the/cairo_run endpoint of your deployed model's URL. For example:

```
Copy https://deployment-gizabrain-38-1-53427f44-dagsgas-ew.a.run.app/cairo_run
```

This action will execute the inference, generate Trace and Memory files on the platform, and initiate a proving job. The inference process will return the output result along with a request ID.

Checking Proof Status

To check the status of your proof, use the following command:

```
Copy giza endpoints get-proof --model-id--version-id --endpoint-id --proof-id
```

Downloading Your Proof

Once the proof is ready, you can download it using:

```
Copy giza endpoints download-proof --model-id--version-id --endpoint-id --proof-id --output-path
```

You can find an extensive example in [Giza Action tutorial](#)

Option 2: Proving a Model Directly from the CLI

Alternatively, you can prove a model directly using the CLI without deploying the model for inference. This method requires providing Trace and Memory files, which can only be obtained by running [CairoVM](#) in proof mode.

Running the Prove Command

Execute the following command to prove your model:

```
Copy giza prove --trace --memory --output-path
```

This option is less preferred due to the necessity of dealing with CairoVM. If you opt for this method, ensure you use the following commit of CairoVM:1a78237 .

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