Interactive Planetary Viewer

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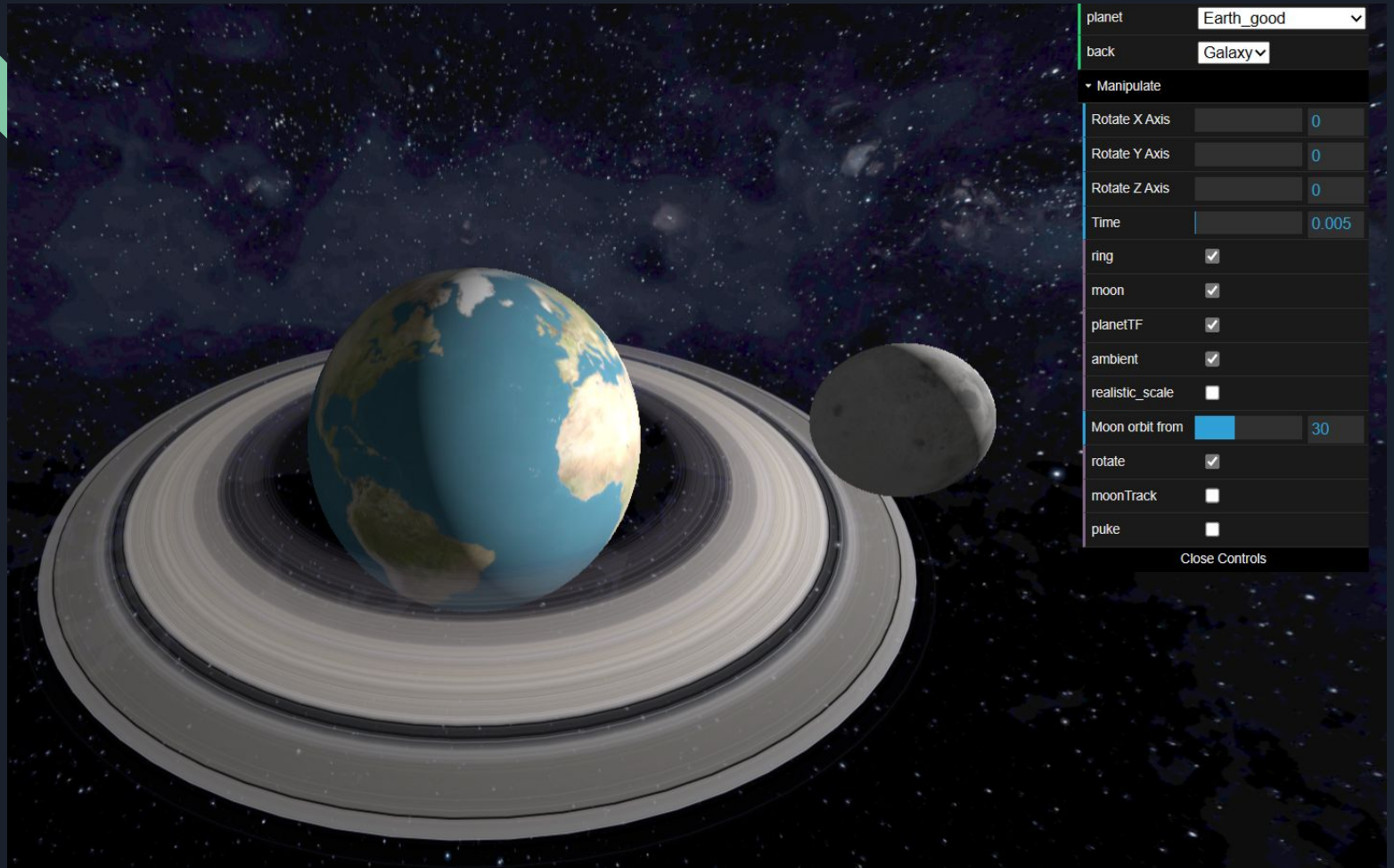
The Original Idea

To create a planetary viewer in Three JS. It would do the following:

- ❏ Map various images of the planets onto a sphere
- ❏ Rotate planets like a globe with input from the keyboard
- ❏ Include a starry background and a point light source to simulate the Sun
- ❏ Include features from specific planets like Saturn’s rings or Neptune's many moons

Screenshot


planet
Earth_good
back
Galaxy
Manipulate
Rotate X Axis
0
Rotate Y Axis
0
Rotate Z Axis
0
Time
0.005
ring
moon
planetTF
ambient
realistic_scale
Moon orbit from
30
rotate
moonTrack
puke
Close Controls

Results

- ☑ Map various images of the planets onto a sphere
- ☑ Rotate planets like a globe with input from the keyboard (ultimately changed to be from mouse input as I found it to be a better user experience)
- ☑ Include a starry background and a point light source to simulate the Sun
- ❓ Include features from specific planets like Saturn’s rings or Neptune's many moons

The Process

- I learned a lot over the course of making this project, as simple as it may be
- Couldn't get a map of some solar bodies (planetary moons specifically)
- Ultimately decided to use only Earth's moon as i didn't like the appearance of moons that were merely colored grey
- Implemented other quality of life features:
  - Realistic planetary scale
  - Variable timescale
  - Adjustable moon orbit radius
  - Saturn's ring visible on any planet
- I also implemented both daytime and nighttime maps for the Earth, but I apparently disabled it at some point and now it's broken. I need to chase down that bug.
- Ultimately, I'm not done with this project. I intend on developing this in my own time for fun.
- Future Improvements:
  - Add more interactivity to it
  - Display fun facts for chosen planet
  - Implement more moons
  - Find better way to display physical scale
  - Set time/rotation speed to realistic value
  - Fix the earth map bug