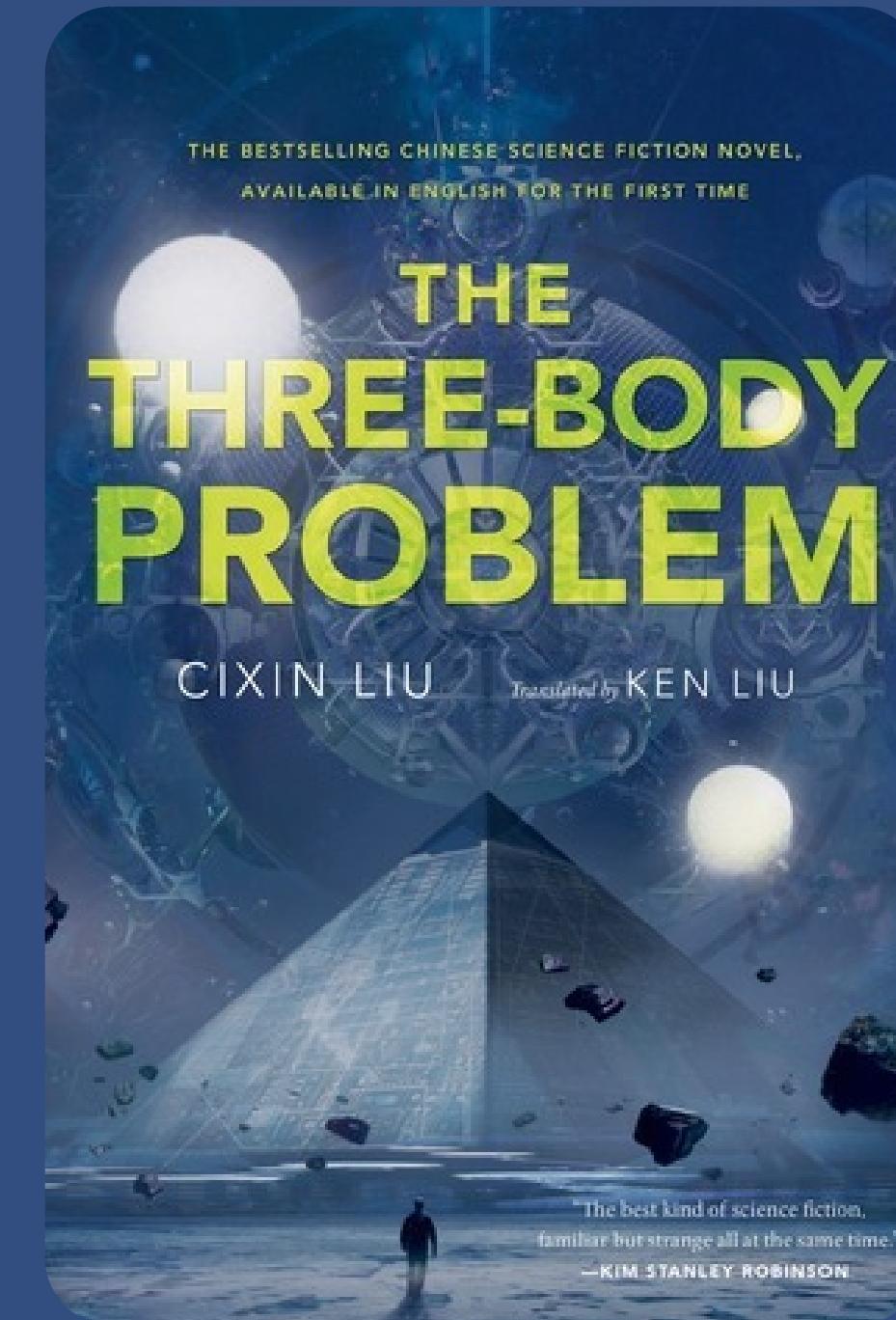


The Three- Body Problem

ZOEY CHEN

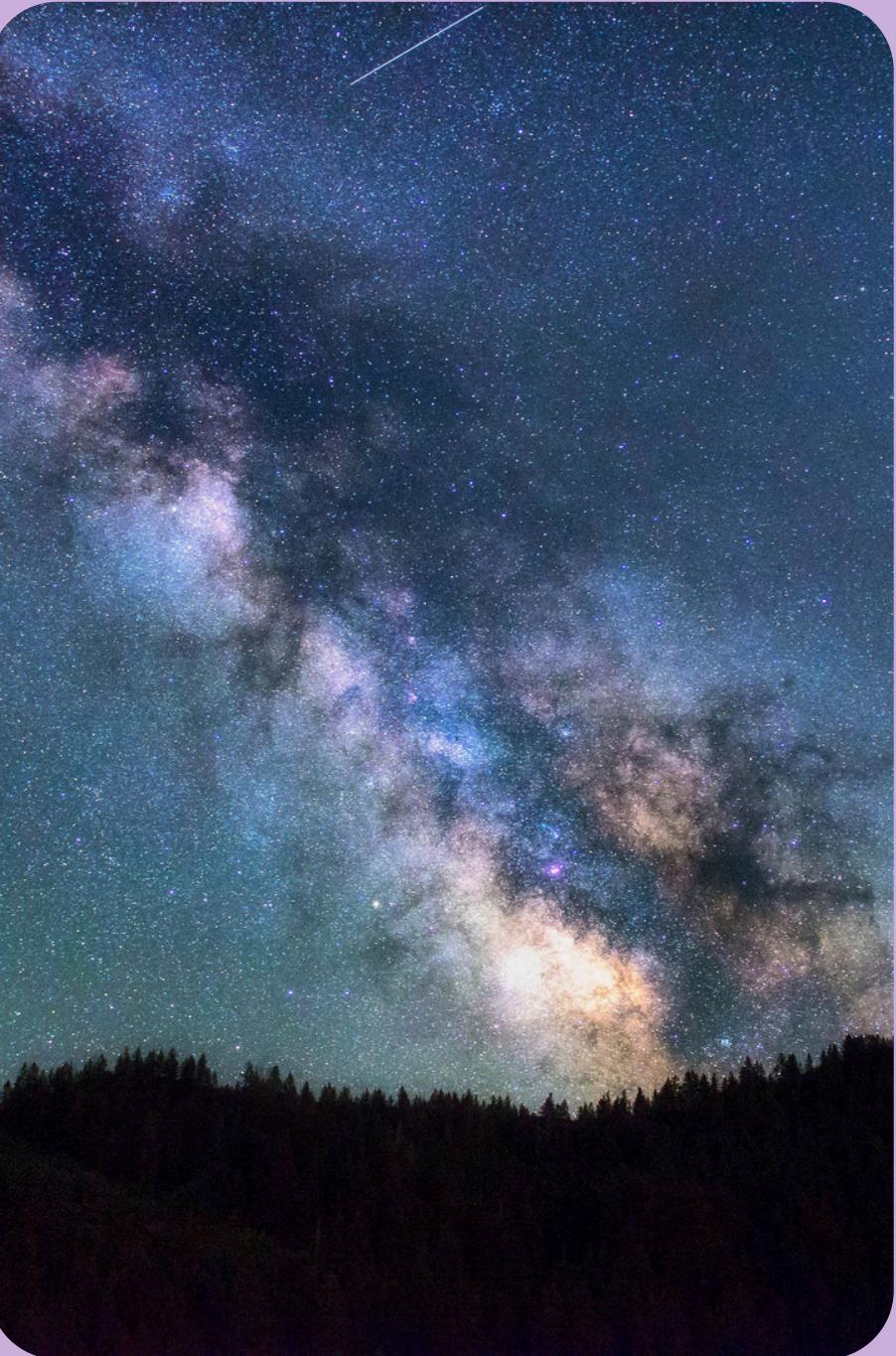
Inspiration

- *The Three-Body Problem* by Cixin Liu
- Annie!
- N-Body Simulator (built by Jeff Garnier)

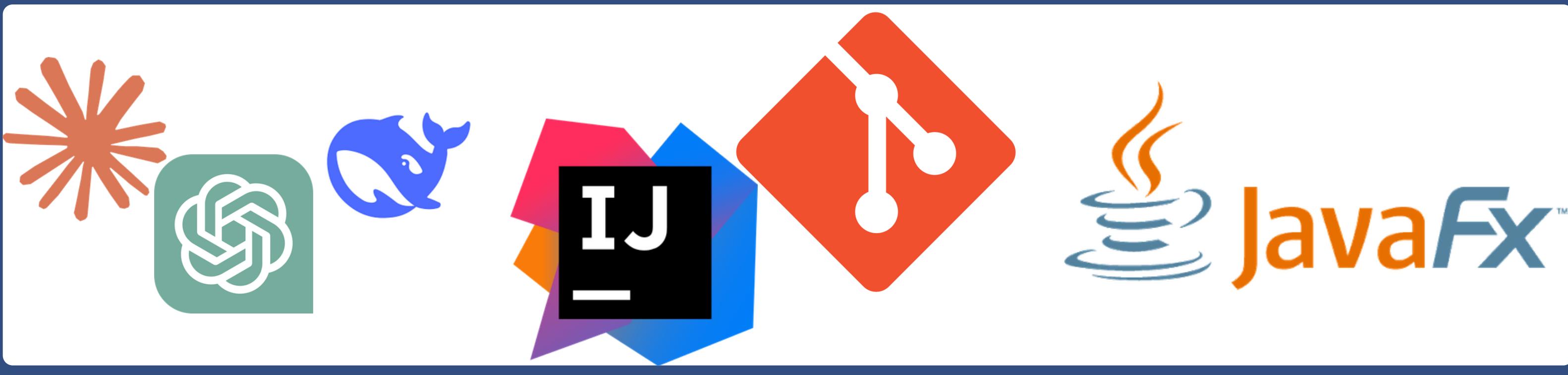


Three-Body Problem?

- Using initial position and velocity of three masses
- Simulate with classical mechanics
- No general, closed-form solution & chaotic

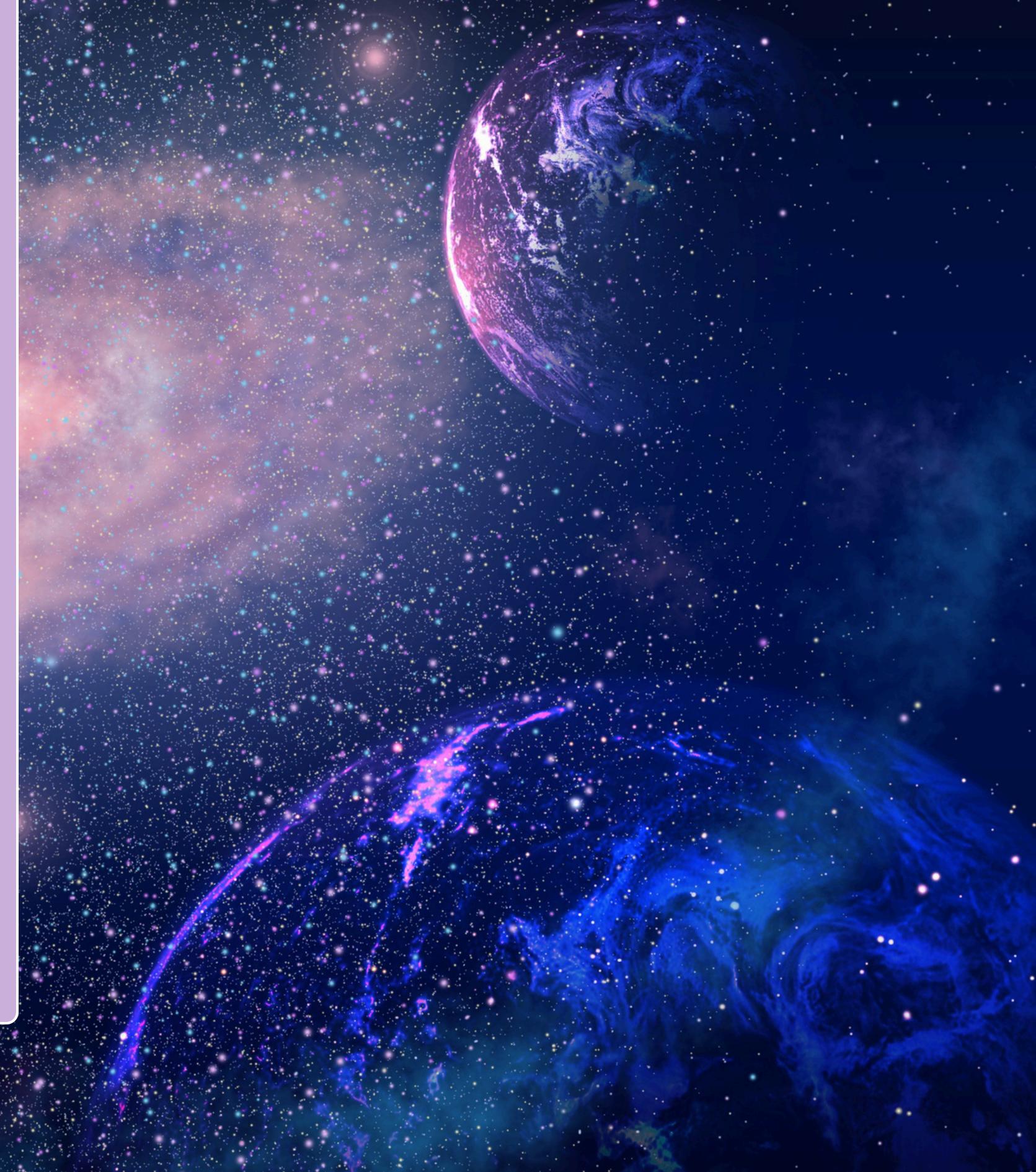


Tools and Technologies Used



Skills

- UI design
- Version Control
- Scheduling





Challenges

- Perspective Camera
- Numbers updating on the left panel

Takeaways

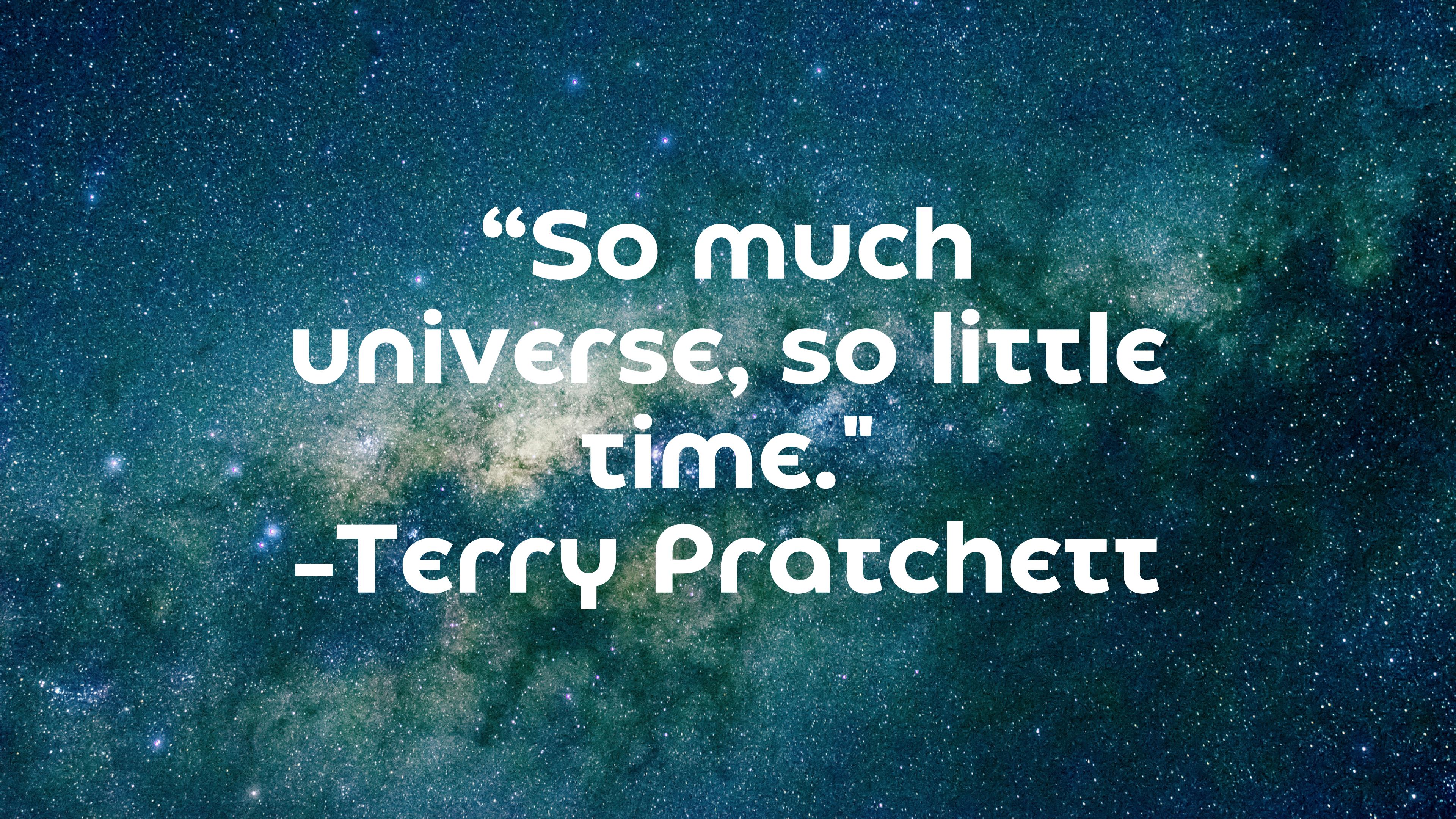
- UI is hard + cannot be an afterthought
- If something works, even if it's not optimal, it's okay to move on
- Try to follow a schedule

Improvements

- Better error checking
- Panning around the origin (and generally better camera controls)
- Pre-sets of known solutions to the three-body problem
- Finish Runge-Kutta 4 integration



Thank you
very much!



“So much
universe, so little
time.”
-Terry Pratchett



Questions?
Comments?
Concerns?