



This is a study plan created from ChatGPT for learning modern OpenGL

Great! Learning modern OpenGL is an excellent choice for game development. Here is a study plan for you based on your goal, time commitment, and resource preferences:

Week 1-2: Getting Started with OpenGL

- Read through the "Getting Started" section of the OpenGL Programming Guide, 8th Edition
(<https://github.com/vasil-lyubenov/unity-ebooks/tree/main/Misc>)
- Watch "OpenGL 101" tutorial series by TheChernoProject on YouTube
(https://www.youtube.com/playlist?list=PLlrATfBNZ98foTJPJ_Ev03o2oq3-GGOS2)

Week 3-4: Understanding OpenGL Basics

- Read the "OpenGL Basics" section of the OpenGL Programming Guide, 8th Edition
- Complete "Learn OpenGL" tutorial series by Joey de Vries
(<https://learnopengl.com/>)

Week 5-6: Learning Modern OpenGL

- Read the "Modern OpenGL" section of the OpenGL Programming Guide, 8th Edition
- Complete "Modern OpenGL" tutorial series by TheChernoProject on YouTube
(https://www.youtube.com/playlist?list=PLIrATfBNZ98foTJPJ_Ev03o2oq3-GGOS2)

Week 7-8: Implementing Shaders

- Read the "Shaders" section of the OpenGL Programming Guide, 8th Edition
- Complete "OpenGL Shader Programming" tutorial series by ThinMatrix on YouTube
(<https://www.youtube.com/playlist?list=PLRIWtICgwaX0u7Rf9zkZhLoLuZVfUksDP>)

Week 9-10: Advanced OpenGL Techniques

- Read the "Advanced OpenGL" section of the OpenGL Programming Guide, 8th Edition
- Complete "Advanced OpenGL" tutorial series by TheBennyBox on YouTube
(https://www.youtube.com/playlist?list=PLEETnX-uPtBXP_B2yupUKIfIXBznWIIL5)

Additionally, you can practice implementing the concepts learned in each week by creating small projects and experimenting with different features of modern OpenGL. Try to spend at least 2 hours a week on practical projects to reinforce your learning.

I hope this study plan helps you achieve your goal of learning modern OpenGL and becoming a game developer. Good luck!

Projects for weeks

Here are some project ideas that you can work on every week to reinforce your learning of modern OpenGL:

Week 1: Create a Simple OpenGL Application

- Create a simple OpenGL application that displays a 3D object on the screen
- Experiment with different OpenGL functions to manipulate the object, such as rotation and translation

Week 2: Implement Textures

- Learn how to implement textures in OpenGL
- Create an application that displays a textured object on the screen

Week 3: Implement Lighting

- Learn how to implement lighting in OpenGL
- Create an application that displays a 3D object with lighting

Week 4: Implement Shadows

- Learn how to implement shadows in OpenGL
- Create an application that displays a 3D object with shadows

Week 5: Implement Post-Processing Effects

- Learn how to implement post-processing effects in OpenGL, such as blur and bloom
- Create an application that applies post-processing effects to a rendered scene

Week 6: Implement Particle Effects

- Learn how to implement particle effects in OpenGL
- Create an application that displays particle effects, such as fire or smoke

Week 7: Implement 2D Graphics

- Learn how to implement 2D graphics in OpenGL
- Create an application that displays 2D graphics, such as a game HUD

Week 8: Implement Animation

- Learn how to implement animation in OpenGL
- Create an application that displays an animated 3D object

Week 9: Implement Collision Detection

- Learn how to implement collision detection in OpenGL
- Create an application that detects collisions between objects in a 3D scene

Week 10: Create a Game

- Use the knowledge and skills gained in the previous weeks to create a simple game using OpenGL

Remember to break down each project into smaller tasks, and aim to spend at least 2 hours per week on each project. Good luck, and have fun experimenting with modern OpenGL!