



Milestone 1

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Project Idea

- Browser-based glTF 2.0 viewer using WebGPU API
- A sample viewer using WebGL API: <https://github.khronos.org/glTF-Sample-Viewer-Release/>

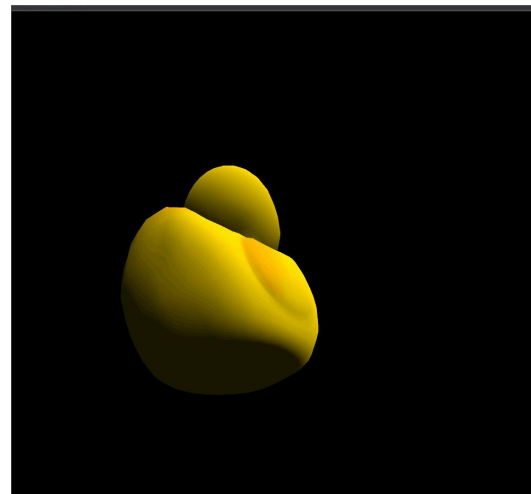


Milestone 1

- Studied:
 - WebGPU API ✓
 - glTF 2.0 specification ✓
 - Web application framework (Webpack, TypeScript) ✓
- Implemented basic code framework ✓
 - glTF loader
 - Renderer with Lambertian shading model



Live Demo





Next Milestone

- Physically based rendering framework
- Support for core features
 - Scenes and nodes
 - Camera Module
 - PBR Materials
 - Looking into skinning and morph animation
- Looking into some extensions (e.g. draco mesh compression)



References

- For building render pipelines using WebGPU API:
 - <https://github.com/austinEng/webgpu-samples>
 - <https://alain.xyz/blog/raw-webgpu>
 - <https://www.willusher.io/graphics/2021/08/29/0-to-gltf-triangle>
- WebGPU specification: <https://www.w3.org/TR/webgpu/>
- glTF 2.0 specification: <https://github.com/KhronosGroup/glTF/blob/main/specification/2.0>
- Javascript file reading logic: <https://github.com/shrekshao/minimal-gltf-loader>
- Sample models: <https://github.com/KhronosGroup/glTF-Sample-Models>