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Demo Video:

[demo.mp4](#)

Implemented Features:

- Timeline with keyframe timestamps
- Scrubber for timeline
- Keyframe preview list
- Editing, deleting, and previewing keyframes
- Reordering keyframes with drag and drop
- Camera animation
- Bone translation
- Moving timestamps
- Locking timestamps
- Downloading animation as webm

Issues

- Optimizing drawing only when necessary since we added so many new elements
- Rendering a texture took a lot of trial and error with sizes and scaling
- Detecting mouse interactions with GUI elements took a lot of thinking about how to scale and offset the coordinates correctly to transform them into the correct space
- After running for a while, the performance slows down considerably
- Downloading as webm doesn't include last frames, and frame rate seems low

Sources and Articles:

- [WebGL Rendering to a Texture \(webglfundamentals.org\)](#)
- [WebGL Framebuffers \(webglfundamentals.org\)](#)
- [Maths - SLERP - Martin Baker \(euclideanspace.com\)](#)