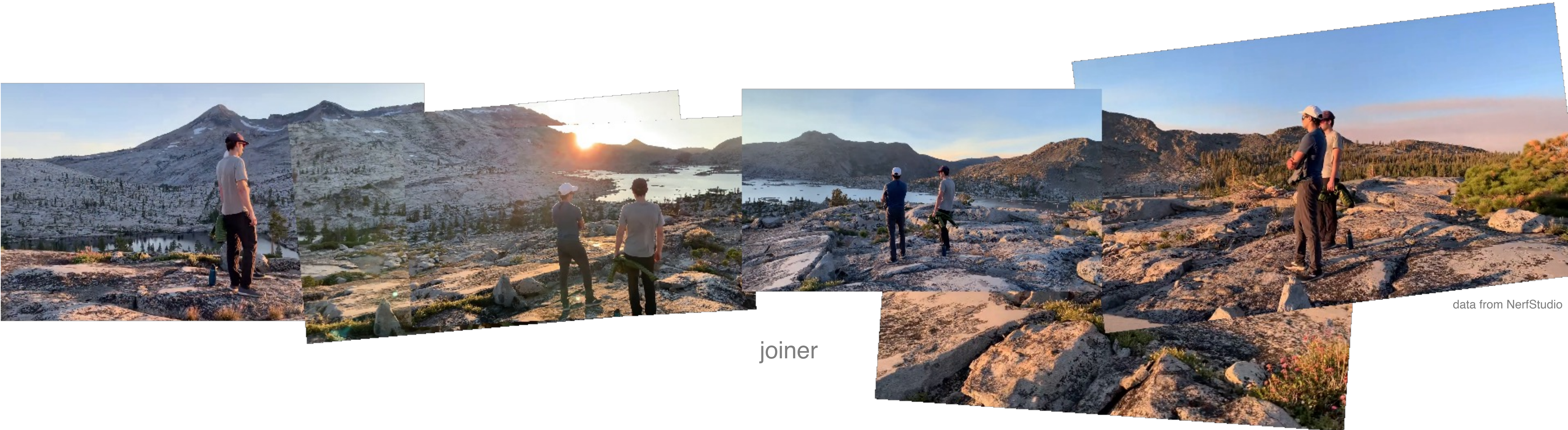




panorama



joiner



seamless joiner

Motivation

"Photography is all right if you don't mind looking at the world from the point of view of a paralyzed cyclops-for a split second." - David Hockney

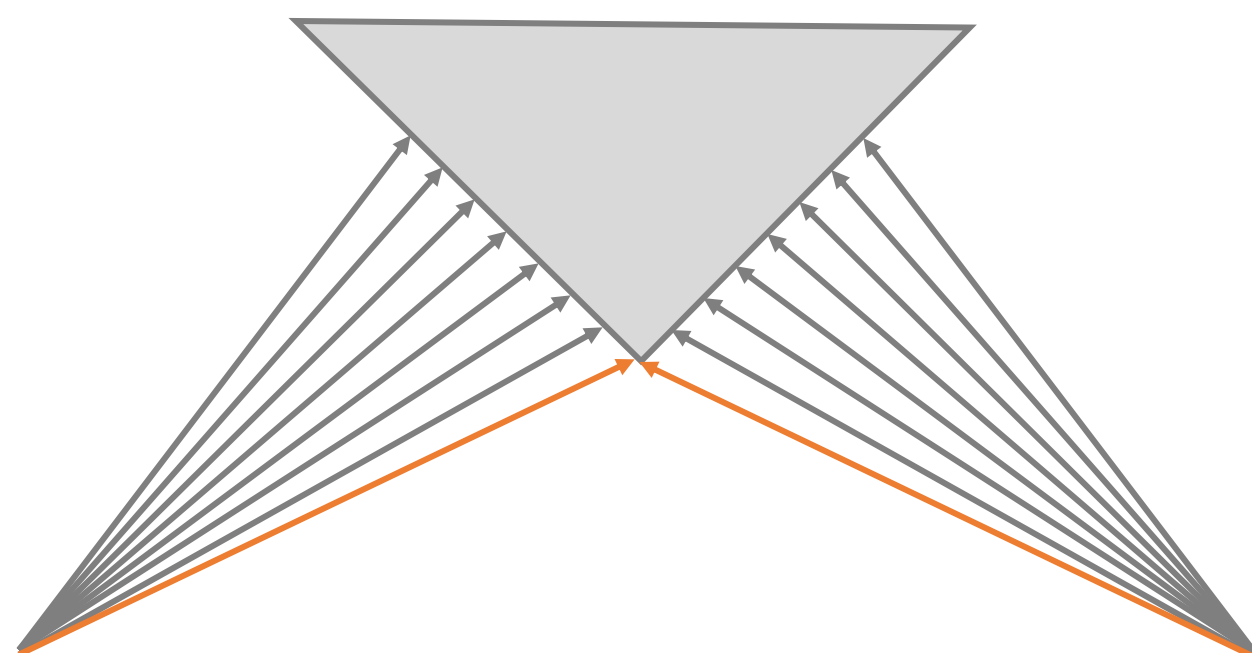
Natural looking multi-perspective photos

- wide field of view
- subjective visual experience
- creative imagery



Observation

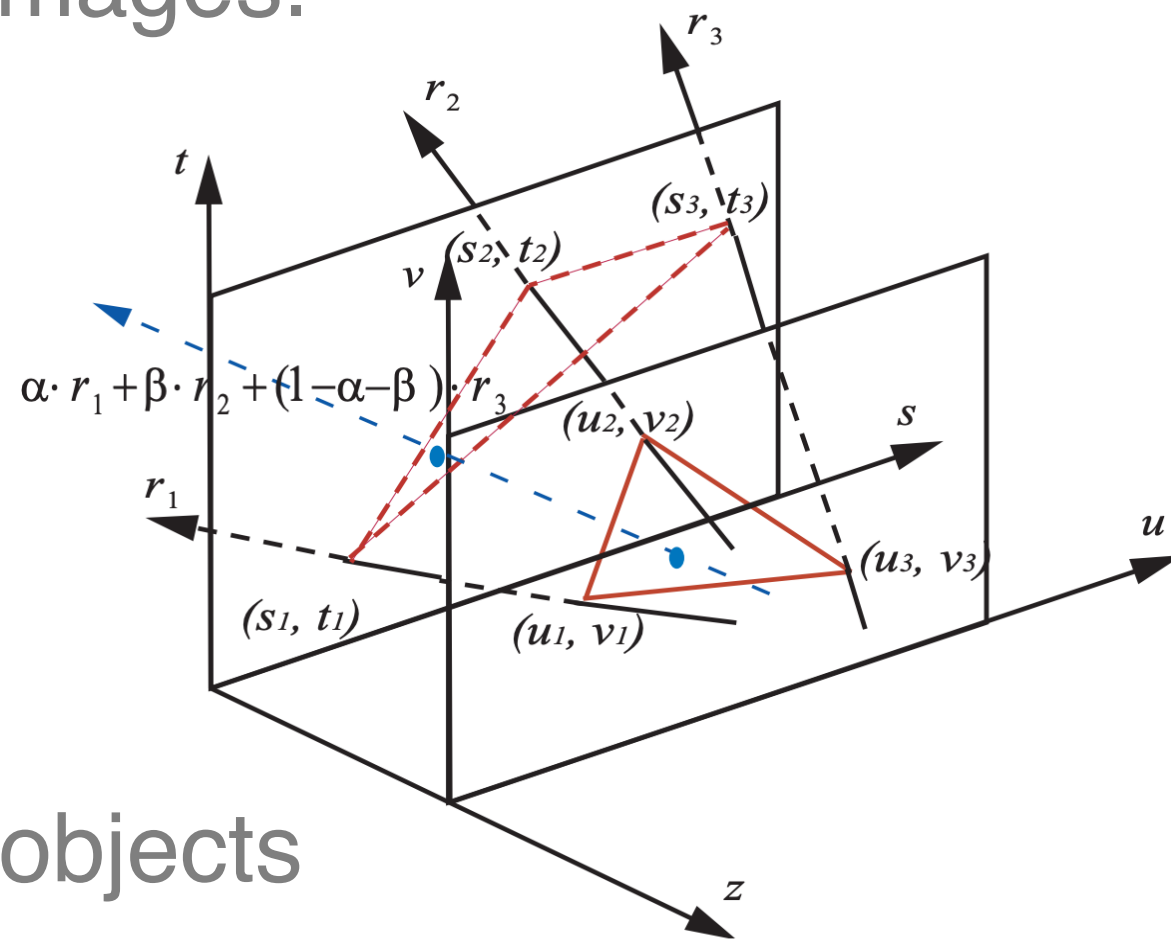
Perspective changes appear continuous when neighboring pixels correspond to rays that intersect on the surface of an object.



Method

- Create general linear cameras (GLCs) that
- replicated joiner image perspective in the center regions,
 - interpolated rays smoothly between images.

Use the rays from GLCs to render a radiance field of the scene.



Future work

- adaptive rendering range to exclude objects
- contour-fitting selection for GLC vertices
- expand field of view of joiner

References

Tancik et al. "Nerfstudio: A modular framework for neural radiance field development." SIGGRAPH 2023.
Yu and McMillan. "General linear cameras." ECCV 2004.
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