Twitter Thread by Scott Condron

Scott Condron
@_ScottCondron

Understanding NeRF or Neural Radiance Fields ■

It is a method that can synthesize new views of 3D scenes using a small number of input views.

As part of the @weights_biases blogathon (https://t.co/tRddw6jXeA), here are some articles to understand them
1/



Want to dive head first into some code? ■
Here is an implementation of NeRF using JAX & Flax https://t.co/pKO5NDSDqv.

The Report used W&B to track the experiments, compare results, ensure reproducibility, and track utilization of the TPU during the experiment.
2/

Mip-NeRF 360 is a follow-up work that looks at whether it's possible to effectively represent an unbounded scene, where the camera may point in any direction and content may exist at any distance.

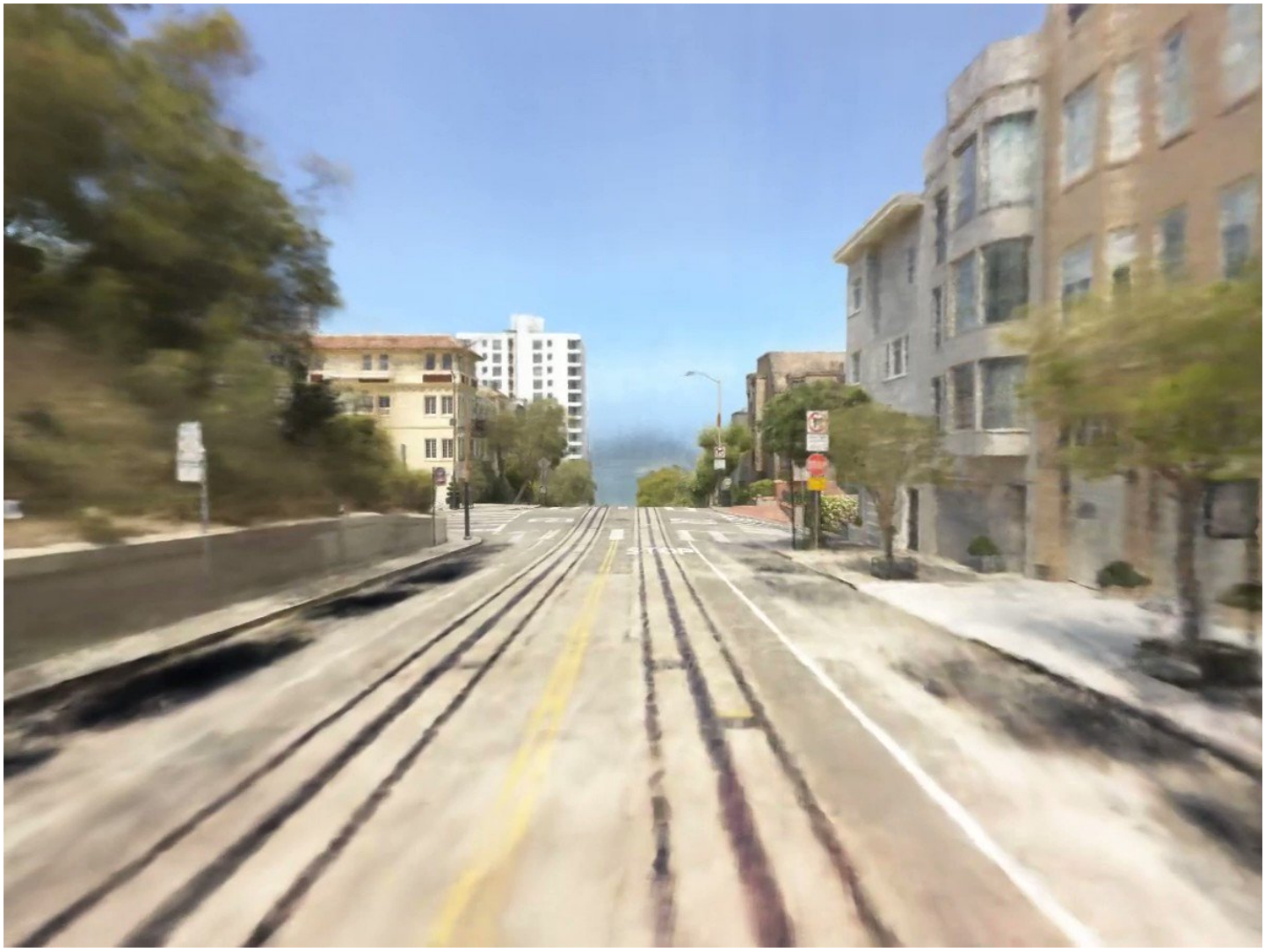
https://t.co/QNY6VuN8zd
3/



Training a single NeRF does not scale when trying to represent scenes as large as cities.

To overcome this challenge, Block-NeRF was introduced which yields some amazing reconstructions of San Francisco. Here's one of Lombard Street.

4/



They built their implementation on top of Mip-NeRF, and also combine many NeRFs to reconstruct a coherent large environment from millions of images.

■Read more here:
https://t.co/C34gdGlx6f
5/

These articles have been written using @weights_biases Reports, a collaboration tool for ML projects.

Here's a thread I wrote about why I love W&B reports
https://t.co/EiCtCfyZcb
6/

> How many discoveries were lost because they weren't written down?
>
> I wrote a bit of a love letter to @weights_biases Reports to share with people while they onboard if you'd like a read.https://t.co/8UyAkz6ZGR
>
> Why I like Reports:
> 1/5

— Scott Condron (@_ScottCondron) March 23, 2022

Thanks for reading! ■

The W&B blogathon is ending in a few days on June 14, if you'd like to take part and write some nice articles as I've included here, we'd love your participation.
https://t.co/tRddw6jXeA
7/

Follow @soumikRakshit96 for more of these articles. He's an amazing engineer and is great at explaining extremely complex topics!