

Twitter Thread by Scott Condon

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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/pKO5NDSDqy>.

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>

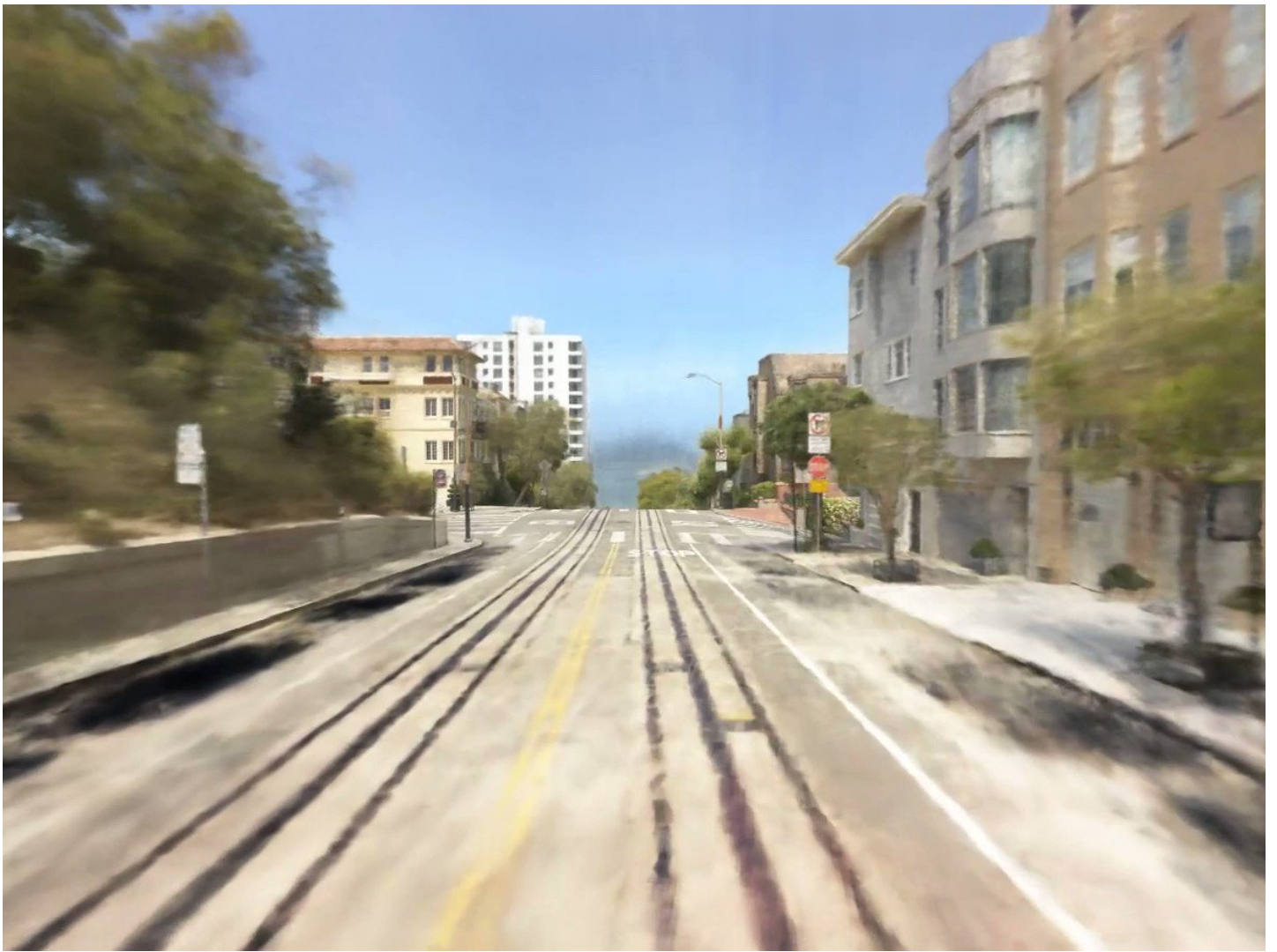
3/



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.

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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

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>

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