

Experience - Distributed Systems and Data Pipelines

Twitter

Senior Software Engineer

San Francisco, CA

May 2021 - Present

- I worked on Twitter’s Tweet Service, one of Twitter’s most critical pieces of infrastructure. The Tweet service served tens of millions of requests per second and was relied on for nearly every product at Twitter. Over 3 years I played many roles on the team. I lead designs, wrote tons of code for countless product integrations, mentored new members, advocated for tests and docs.

I am most proud of the design I led for an async event driven task daemons that now power most Tweet related write operations.

Software Engineer

May 2012 - March 2016

- Worked on Twitter’s data engineering team. I led the design of Twitter’s core metrics pipeline, a critical piece of infrastructure that computed Daily Active Users leading up to Twitter’s 2013 IPO.

Experience - Research Engineering

Vicarious AI

Senior Computer Vision Engineer

Union City, CA

Oct 2019 - May 2021

- Worked on algorithms and the data pipeline for a 3D reconstruction system which created textured 3D models for a wide variety of object categories.
- Evaluated promising geometry-processing research for techniques for use in our 3D reconstruction pipeline.

Planet Labs

Senior Computer Vision Engineer

San Francisco, CA

May 2016 - Oct 2019

- Engineering lead on Planet’s multiview geometry pipeline, from prototype to production. This image registration system was used to assemble composite images for Planet’s next generation imaging satellites.

The pipeline I designed was a major contributor to the success of a risky bet Planet had made on multistripe sensor satellites, it is the highlight technical achievement of my career.

- Designed and implemented image quality metrics for real-time monitoring of 100+ satellites.

Academic Conferences Attended

- Color Imaging Conference: 2016/2017/2018
- Symposium on Geometry Processing: 2020/2021
- ACM SIGGRAPH: 2022

Ask me about

Color Science

Imaging Science

Distributed Systems

Differential Geometry

Education

University of Idaho

Unfinished Bachelor of Computer Science

Moscow, ID

Aug 2007 - May 2012