

Kevin Jiang

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About Me

I'm a full stack developer who is passionate about the intersection of art and artificial intelligence. I also love doing freelance photography, experimenting with the latest innovations in deep learning, and playing music with friends.

Projects

- Summer 2022 **Ray Tracer**, Renders photo-realistic 3D scenes with recursive ray tracing implemented in C++. Optimized ray intersection calculation using bounding volume hierarchies, a logarithmic time search algorithm. Rendering capabilities include anti-aliasing, motion blur, diffuse shading, reflection, refraction, and defocus blur/depth of field.
- Spring 2020 **Jazz Transformer**, Performed fine-tuning on a transformer trained on classical music (Huang et al., 2018) to generate authentic, nuanced jazz music. Compiled a jazz MIDI data set using an audio transcription model based on RNNs called Onsets and Frames (Hawthorne et al., 2018). Used TensorFlow and Google Magenta.
- Summer 2019 **Scriber**, React Native app that uses Google Natural Language API to provide real-time speech-to-text transcription for lecturers, tour guides, and other groups. Won first place at Horizons Summer Immersive Hackathon.

Education

Columbia University

New York, NY

B.A. IN COMPUTER SCIENCE | GPA: 3.8

May 2020

- Coursework: Computer Vision, Computer Graphics, Systems in C, Applied Deep Learning, Natural Language Processing, Strategic Design

Work Experience

GLMX LLC

New York, NY

SOFTWARE ENGINEER

September 2022 - Present

- 7th engineering hire. Ground-up development of the leading platform for Repurchase Agreements and Securities Lending with over \$ 1 trillion USD in daily trading balances. (Angular frontend / Go backend)

Harmony Cloud

New York, NY

SOFTWARE ENGINEER

December 2020 - Present

- Harmony Cloud is the brainchild of Grammy-nominated musician and educator Stefon Harris. Developed over the course of nearly a decade, these novel algorithms generate unpredictable yet compelling chord progressions following the rules of Western music theory.
- My contributions involve a complete frontend overhaul with React Native as well as maintaining the core generative algorithms in C++.

Simple Fractal

New York, NY

SOFTWARE ENGINEER

September 2021 - September 2022

- Automated workflows for 10,000+ monthly nursing shifts by building a scheduling service for a healthcare client. Implemented using cloud technologies including AWS Lambdas and practices like parallelized step functions. Iterated on a shift matching algorithm based on nurse qualifications and availability.
- On-boarded 2 new hires and guided them through a basic automation project that is now in production. Wrote scope of work documents and conducted discovery calls for this and various other features.

Columbia Photography Association

New York, NY

PRESIDENT

December 2015 - December 2018

- Expanded our clientele to include notable organizations like the United Nations and Lincoln Center. Maintained relations with regulars across NYC.
- Coordinated over 150 photography contracts per semester, oversaw 7 board members and dozens of student photographers.
- Built a full stack web application to automate our job-handling and book-keeping workflows (MERN stack).

Skills

Tools Angular, PyTorch, TensorFlow, AWS, SQL, React, React Native, UNIX, Git

Languages Go, Python, Typescript, Javascript, C, C++, HTML/CSS