Kevin Jiang

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About Me

Curiosity and a wide-range of interests are central to who I am as a Software Engineer. I have experience bringing full stack projects from planning to production and I'm deeply passionate about the intersection of design and artificial intelligence. Outside of work, I love exploring the latest advances in Music Machine Learning, working freelance photography gigs, and performing at jazz jam sessions around the city.

Education

Columbia University *New York, NY*

B.A. in Computer Science | GPA: 3.8 *May 2020*

- Coursework: Applied Deep Learning, Strategic Design, Computer Vision, Computer Graphics, Artificial Intelligence, Natural Language Processing

Work Experience

Simple Fractal *New York, NY*

Full-Stack Software Engineer *September 2021 - Present*

- Built scheduling service for a healthcare client automating manual workflows for over 10,000 nursing shifts per month. Leveraged cloud technologies like AWS lambdas and step functions to parallelize and deploy solutions. Iterated on a shift matching algorithm based on nurse qualifications and availability.
- Contributed over 10 features across 2 separate teams. Technologies included React, Redux, Django, PostgreSQL, NodeJS, Puppeteer.
- 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 client discovery calls for this and many other features.

Harmony Cloud *New York, NY*

Software Engineer *December 2020 - May 2021*

- React Native app based on an algorithm that generates unpredictable yet compelling chord progressions following the rules of Western music theory.
- Worked with GRAMMY-nominated musician Stefon Harris to prototype and implement educational use cases for the algorithm.

Bank of New York Mellon *New York, NY*

Product Design Intern *June 2018 - August 2018*

- Built a prototype data visualization tool with Microsoft HoloLens, demonstrating tangible business applications of augmented reality.
- Wireframed dashboards for a big data product (Asset Strategy View) generating market intelligence across multiple business lines.

Columbia Photography Association *New York, NY*

President *December 2015 - May 2019*

- 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 full stack web application to automate our job-handling and book-keeping workflows (MERN stack).

Skills

Tools NodeJS, React/Redux, Django, AWS, SQL, Puppeteer, Unity, UNIX, Git/Github, TensorFlow, Keras, OpenCV

Languages Python, JavaScript, C, C++, C#, Java, HTML/CSS

Projects

Summer 2022 **C++ Ray Tracer,** Renders photo-realistic 3D scenes with recursive ray tracing implemented in C++. Optimized with bounding volume hierarchies (logarithmic time complexity search tree). Capable of anti-aliasing, motion blur, diffuse shading, reflection, refraction, and defocus blur/depth of field.

Spring 2020 **Jazz Transformer,** Attention-based neural networks to generate authentic, nuanced jazz music. Compiled a jazz MIDI data set using a state-of-the-art transcription model called Onsets and Frames. Performed transfer learning on a base transformer model trained on classical music. 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.