

Jay Kim

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I am a software engineer with hands-on experience building dynamic web apps and maintaining developer platforms. I am passionate about coding as a craft and creating delightful user/developer experiences. I am looking for a collaborative work environment and new technical challenges that are outside of my comfort zone.

Work Experience

Staff Software Engineer - Pinterest, Internal Tools Platform **2019 to present (4 yrs+), Seattle, WA**

- Creator and tech lead of the Internal Tools Platform used to create, build, and deploy internal web applications. Currently supporting 80+ internal tools used by 30+ teams at Pinterest. Founded the project and started as the sole engineer for 1 year. Currently leading 2 engineers.
- Creator and sole maintainer of a docs-as-code Markdown documentation platform used by 40+ software projects. Built a static site generator, CLI tool and a dev server. Pinterest engineers can commit Markdown documentation to any repository and have it automatically appear on the doc site. Collaborating with the technical writing team to advise on Pinterest's technical documentation strategy.
- Created a TypeScript monorepo for internal web tools and Node.js packages. Currently at 90+ packages with contributions from hundreds of engineers.
- Built a CI/CD pipeline used by 80+ internal tools using Jenkins Pipeline. Internal tools continuously deploy to Kubernetes. Eliminated the need for internal tool owners to build their own ad-hoc CI/CD pipelines.
- Built a custom web framework used by internal tools with Next.js and Fastify that tightly integrates with Pinterest infra and auth services. Engineers no longer have to implement authentication, authorization, logging, and monitoring for their tool.
- Built a CLI tool that scaffolds a fully deployable internal web application. Reduced the time it takes to bootstrap and deploy a web application from days to minutes.
- Built an internal tool to allow contractors to interactively label HTML documents to produce training data for ML models that predict price, availability, product description, etc. for Shopping Pins from their underlying web page. Built functional prototype in 1 week.
- Built an internal tool to allow Pinterest Account Managers to generate sales collateral from templated Google Slides to upsell advertisers on opportunities.
- **Technologies:** TypeScript, React, Node.js, Prisma, Fastify, Next.js, GraphQL, Webpack, Jenkins, Kubernetes, Envoy

Senior Software Engineer - Pinterest, Homefeed Recommendations **2018 to 2019 (1 yr), Seattle, WA**

- Worked on AB experiments to safely bootstrap the distribution of video content for Pinterest content creators. Plumbed video features from our web client all the way down to our homefeed ranking models. Increased recommended video content from <1% of pins on the homefeed to 4%.
- Implemented event logging for pinterest.com Video Pins following the MRC viewability logging standard. Led a working group of iOS and Android engineers to fix implementation differences and converge on logging behaviour.
- Built Java code libraries and data workflows using Hive and Scalding to help engineers run and analyze AB experiments that compare content creator metrics. Built data reports using Jupyter, numpy, pandas, and matplotlib to analyze the data. This has allowed the team to run AB experiments on content creators to help us understand how to positively impact content distribution.
- **Technologies:** JavaScript (Flow), Java, Scala, Python, C++, Scalding, Hive

Education

Bachelor of Computer Science

2009 - 2014, University of Waterloo

Work Experience (cont.)

Senior Software Engineer - Pinterest, Ads Manager

2017 - 2018 (1 yr 2 mos), Seattle, WA

- Core contributor to UI integration test framework and CI pipeline for ads.pinterest.com. Started from only a few UI integration tests that are run during staging deployments to UI integration tests that run on every pull request. Worked on visual regression testing and introduced Thrift RPC record and replay to mock service back-ends.
- Designed and implemented a library to declaratively add two-way data bindings between Redux app state and URL query strings. Fixed a class of problems where URL sharing would become unreliable as query strings would often go out of sync with app state due to developer error. Library is used by ads.pinterest.com and analytics.pinterest.com.
- **Technologies:** JavaScript (Flow), React, Redux, Jest, WebDriverIO, Buildkite

Software Engineer I/II - Pinterest, Growth

2014 - 2017 (2 yrs 9 mos), San Francisco, CA

- Owner and author of React library, Python service and UI tool collectively known as Experience Framework. This is used to build, configure, and serve transactional product experiences such as product onboarding experiences, user education prompts, and promotional banners. Tool is used by most product teams at Pinterest and manages 100+ live product experiences on web and mobile devices.
- Proposed and led 2 month rewrite of Experience Framework Python service from a hard to debug, spaghetti codebase to a modular and easy to debug codebase. Rewrite was a success with negligible impact to user metrics. New feature development was made possible as a result. Customer support burden was reduced due to improved ergonomics, visibility and debuggability of the system.
- Built an email drip campaign for new users. Implemented HTML and CSS for emails and an email delivery pipeline using asynchronous job queues.
- **Technologies:** Python, JavaScript, React, Webpack, Flask, SQLAlchemy, MySQL, HBase, Kafka

Software Engineer Intern - Pinterest, Growth

2013 (4 mos), San Francisco, CA

- Worked on numerous AB experiments to optimize new user sign-ups and new user activation. (unauth homepage redesign, new user sign up flows, unauth landing page optimizations).

Software Engineer Intern - BlackBerry, Corporate Development

2013 (4 mos), Waterloo, ON

- Developed a mobile web CRM proof of concept using Sencha Touch and PhoneGap.
- Developed a desktop daemon (using Ruby) that wirelessly syncs desktop state such as browser tabs and currently playing music to a Blackberry 10 device.

Software Engineer Intern - FreshBooks

2012 (8 mos), Toronto, ON

- Developed a Django web application to track revenue gains from online advertising.
- Rewrote the front-end of FreshBooks integration with the Constant Contact email marketing platform using Backbone.js and PHP.

Test Analyst Intern - Canadian Imperial Bank of Commerce, Quality Assurance

2010 (4 mos), Toronto, ON

- Performed user acceptance testing for online banking releases. Tested on different operating systems and browsers. Reported bugs to the development team.

Visa Status

Canadian citizen. US green card holder.