

## JIM KANG: RESUME

I've been a software developer since the year 2000. You can reach me at [jimkang@fastmail.com](mailto:jimkang@fastmail.com).

## WORK EXPERIENCE

### GHOST CRAB WORKSHOP

*Aug. 2021 to present*

Contract work. Reviewed code for [PullRequest](#). Introduced tests and improved Node app stability for [Design Academy Eindhoven](#).

### SABBATICAL

*Nov. 2020 to Aug. 2021*

Childcare, worked on [bots](#), made an [animated story](#) in a 2048-byte program for Taper Magazine, [recorded podcasts](#), made a [browser-performed piece of generative music](#), maintained various projects.

### SPOTIFY

*May 2016 to Nov. 2020, Experienced Developer*

- Using vanilla JavaScript, built a kit that allows non-developers (designers and researchers) to author full-featured voice prototypes that parse user speech, ask questions, and play music. Dozens of prototypes were built and used in user tests every two weeks.
- Built a data pipeline that composes and renders thousands of [playlist covers](#) each day based on the current contents of the [This Is playlists](#) using Python, Docker, Node, and headless Chrome.
- Built web apps, Chrome extensions, and Electron apps for music content prototypes and evaluating and editing algorithmically-generated content.
- Built promotional web sites for features (e.g. [Time Capsule](#)).
- Wrote design documents for experimental features for the Spotify iOS client and built and A/B tested them.
- Wrote design documents, built prototypes, and designed and administered unsupervised user tests for experimental features.
- Built voice-activated speaker prototypes with Node and the Alexa Skill Kit.
- Designed and administered Qualtrics surveys to gather user data to inform the design of an algorithmic playlist.

### HARVARD DEPARTMENT OF CONTINUING EDUCATION

*June 2015 to April 2016, Senior Software Engineer*

Made modifications to an open source video app written in JavaScript.

### CHILDCARE

*February 2015 to May 2015*

Spent time at home taking care of my infant son. (The PayPal Boston office was laid off.)

### PAYPAL

*February 2014 to January 2015, Software Engineer*

- Built features and fixed bugs on Node backend and Angular front end of the PayPal Shop site, which served coupons from various PayPal partners to hundreds of thousands of people per day.
- Followed test-driven development and pair programming practices. Prioritized mobile web functionality.

### NPR

*June 2013 to February 2014*

- Added OAuth to the Composer API Node server.
- Wrote the first automated tests for the API server.
- Built features for Composer, a browser app used by over 200 NPR member stations used it to add program schedules to their web sites and keep track of music they played, as part of a small Kanban-driven team.

*2008-2021 experience available on [jimkang.com/resume](http://jimkang.com/resume).*

## GN RESOUND

*2004 to 2008, Senior Software Developer*

- Worked on a Windows hearing aid adjustment app code in C++, C#, and SQL.

## INSTALLSHIELD

*2000 to 2004, Software Developer*

- Worked in C++ on IDEs that let users create Windows software installation programs.

# PROJECTS

## INTERACTIVE EXPLANATION OF QUADTREES

[jimkang.com/quadtreevis](http://jimkang.com/quadtreevis)

- Step-by-step explanation of quadtrees that lets learners get hands-on.
- Written in JavaScript using D3.

## CHANNEL VOCODER WALKTHROUGH

[jimkang.com/channel-vocoder](http://jimkang.com/channel-vocoder)

- Step-by-step explanation of how the original channel vocoder worked.
- Written in JavaScript using the Web Audio API and D3.

## ANNOY-NODE

[github.com/jimkang/annoy-node](https://github.com/jimkang/annoy-node)

- Bindings that allow Annoy, a C++ library used in machine learning for finding nearest neighbors in high-dimension vector spaces, to be used in Node.
- Written in C++ and JavaScript.

## OBSERVATORY

[jimkang.com/observatory](http://jimkang.com/observatory)

Projects visualizer. Check it out to see the rest of my projects.

## EDUCATION

### RECURSE CENTER

*August 2021 to September 2021*

Studied audio DSP (digital signal processing). Participated in and lead study groups and pair programming sessions.

### NORTHWESTERN UNIVERSITY, EVANSTON, IL.

*1995-1999*

BS in Computer Science.