### JIM KANG: RESUME

I've been a software developer since the year 2000. I work best by finding essential product needs, then finding direct routes to meet those needs so that iteration can happen quickly. You can reach me at jimkang@fastmail.com.

# **WORK EXPERIENCE**

### **GHOST CRAB WORKSHOP**

Aug. 2021 to present

- Currently designing and implementing data visualization generators using JavaScript, TypeScript, Node, D3, Vega, and AWS lambdas for Climate Central.
- Reviewing code for PullRequest.

#### **SABBATICAL**

Nov. 2020 to Aug. 2021

Childcare, made an animated story in a 2048-byte program for Taper Magazine, made a browser-performed piece of generative music.

### **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 algorithmicallygenerated content.
- Wrote design documents, built prototypes, and designed and administered unsupervised user tests for experimental features.

# 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.

Further experience from 2000-2014 available on jimkang.com/resume. (Move the "More" slider all the way to the right.)

# **PROJECTS**

# INTERACTIVE EXPLANATION OF QUADTREES

# 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

- 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

- 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

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