

Seth Kingsley

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Summary

Passionate SWE with over a decade shipping apps for desktop, mobile, and cloud. Looking to move into VR/AR/realtime graphics.

- Enthusiastic about software architecture, design patterns, refactoring, and API design.
- Master of comprehending and debugging large codebases, open source technologies.
- Judiciously adopts new tools, languages, and development methodologies.
- Stays focused on high-level objectives while polishing the small details.

June 2017-
December 2017
(7 months)

Software Engineer, Thumbtack, San Francisco, CA

[Golang, PHP, JavaScript, PostgreSQL, BigQuery, Grafana, Mode Analytics]

Thumbtack is an online service that matches customers with local professionals. I worked on both frontend and backend components.

- Collaborated with designers and other engineers to implement frontend features for the site's professional users. This work was done in PHP and JavaScript.
- Built reports for realtime and offline reporting in Grafana and Mode Analytics.
- Ran A/B tests to validate feature variants.
- Worked on the core service for matching and pricing projects in the two-sided marketplace. This work was in Golang.
- Participated in the detailed specification and planning process for new features and infrastructure improvements.

August 2014-
April 2017
(2 years,
9 months)

Founder, Filmosaur, San Francisco, CA

[Ruby, Rails, PostgreSQL, HTML5, CSS3, JavaScript, jQuery, Heroku]

- Created a search engine for streaming movies.
- Built a database of ~110K feature films, aggregated from EIDR, Freebase, and Wikidata.
- Continuously indexed ~330K streams from the major providers: Netflix, Hulu, Amazon, iTunes, YouTube, and Google Play.
- Implemented a search frontend using Ruby on Rails, JavaScript, and jQuery.

March 2012-
March 2015
(3 years)

Independent iOS App Developer

[Objective-C, iOS, Ruby, PostgreSQL, Amazon EC2]

Released two iOS apps into the App Store:

- Deal Steal!: Tracks flash sales on several outdoor sports websites including REI.com and sends notifications when items matching a set of keywords go on sale.
 - Ruby/PostgreSQL backend hosted on EC2.
- TrueLoop: Practice and learn music by slowing down and looping sections of songs.
 - Imports songs from your iTunes music collection.

- June 2012–
July 2014
(2 years,
1 month)
- Contract iOS Developer, Monkey Republic Design, San Francisco, CA
[Objective-C, RestKit, iOS]
- Implemented two iOS apps for MRD clients:
- Healthcare services search and comparison app (think “Yelp for healthcare”).
 - Myers-Briggs personality types reference app for business users.
- July 2011–
October 2011
(4 months)
- Contract iOS Developer, Slice, Palo Alto, CA
[Objective-C, REST, CoreData, iOS]
- Wrote the first version of Slice's iPhone app for tracking your online purchases.
 - Mentored another engineer with beginning iOS development.
 - Named one of the “Best Productivity Apps of 2012” by Business Insider magazine.
- April 2006–
June 2011
(5 years,
2 months)
- Software Engineer, Apple, Cupertino, CA
[Objective-C, C++, Xcode, CoreAudio, MIDI, Mach threads, CoreGraphics, many internal frameworks, macOS]
- Built the first few versions of MainStage [<https://www.apple.com/mainstage/>], an app for live music performance, as part of the Logic Studio music production package.
 - Helped customize and tune the Logic audio engine for use on the stage.
- August 2006
(1 month)
- Contract Software Engineer, Vidiator, Mountain View, CA
[Java, C++, x86 Assembly, Win32]
- Diagnosed and patched a slow memory leak in a closed-source C++ DLL so it could be used within the JVM.
- July 2005–
March 2006
(9 months)
- Software Engineer, iXsystems, San Jose, CA
[C++, Java, Swing, CORBA, PHP, MySQL, SugarCRM]
- Prototyped an appliance server framework using C++ and CORBA, with a Java/Swing UI. Designed to support a product line of infrastructure management solutions.
 - Prototyped a DNS and DHCP solution based on ISC's BIND, using appliance framework.
 - Wrote and maintained several internal web tools for sales and production using PHP with MySQL, integrating them as modules into the open source SugarCRM [<http://www.sugarcrm.com/>] system.
 - Performed various software integration tasks to facilitate the sale of rack-mount server hardware, such as compiling custom kernels, troubleshooting drivers, and performance tuning.
- October 2004–
May 2005
(8 months)
- Network Programmer, Simple Telecom, Reno, NV
[C, Python, The SIP Express Router, RTP, LDAP, MySQL, PHP]
- Wrote modules for the SIP Express Router [<http://www.iptel.org/ser/>] open-source software:
 - An active-monitoring load balancer for proxying SIP calls.
 - LDAP authentication backend.
 - Caller ID and phone number registration.
 - Concurrent call limiting.
 - Added features to a VoIP broadcasting service:
 - Fixed bugs and added minor features to the client extranet using PHP with MySQL.
 - Designed an SSO (Single Sign-On) system, integrating PAM, NSS, Apache, Samba, Qmail, and Courier-IMAP with an LDAP backend.

- April 2004–
October 2004
(7 months)
- Independent Software Developer
- Projects included:
- XML transformation engine for ePilot's SDS2 system [<http://www.epilot.com>], providing an identical API to Google's AdSense. [C, DHTML, JavaScript, GNU/Linux]
 - Programmable USB sound recorder for an embedded system. [C, FreeBSD, GNU/Linux]
 - X Window System continuous screen capture program with network backend. [C, Xlib, Solaris]
 - OSD (on-screen display) volume control for dashboard PC. [C++, Qt, embedded GNU/Linux]
- January 2004–
April 2004
(4 months)
- Contract Systems Administrator, Egation Communications, Fremont, CA
[FreeBSD, Qmail/VPopMail, Cisco 4000 Apache, PHP, BillMax]
- Documented administrative procedures.
 - Customized and skinned the IMP webmail application in PHP.
- June 2003–
October 2003
(5 months)
- Devised a scalable system for virtual hosting of web and email services using VPopMail and Apache.
 - Assisted the buildout of initial wireless infrastructure.
 - Performed day-to-day administration and maintenance of 8 FreeBSD servers.
 - Provided internet services such as mail (Qmail), web, and DNS.
 - Installed and maintained an ISP billing system (BillMax).
- August 2002–
February 2003
(7 months)
- Software Engineer, OffMyServer, San Jose, CA
[C, PXE, FreeBSD, GNU/Linux]
- Developed front-panel server management interface via LCD display.
 - Wrote FreeBSD drivers for several server health monitoring chips.
 - Deployed an unattended install system for FreeBSD and GNU/Linux server platforms using Intel PXE.
 - Documented system install procedures for use by technicians.
 - Researched and tested new software technologies relevant to the server/appliance market.
- May 2001–
September 2001
(5 months)
- Associate Engineer, Wind River, Alameda, CA
- Continued sysadmin duties after acquisition of BSDi by Wind River.
- September 2000–
May 2001
(9 months)
- Junior Systems Administrator, Berkeley Software Design (BSDi), Concord, CA
[FreeBSD, Sendmail, BIND, NIS, NFS, Cisco 4000]
- Maintained hardware and software for a network of ~15 FreeBSD servers.
 - Ran software services including mail, DNS, file sharing, and source control.
 - Implemented automated backups.
 - Provided some support for Win32 and MacOS desktops.
 - Routine network/firewall maintenance on Cisco 4000 series routers.
 - Contributed source patches and documentation to the open-source FreeBSD project.
- Sept 1999–
Sept 2000
(1 year)
- IT Assistant, Delphi Information Sciences, Santa Monica, CA
[WinNT/98/NT/2K, Lotus Notes, MS SQL, MS Terminal Server]
- Performed software and hardware maintenance on ~15 WinNT 4.0 and several Win2K servers.
 - Ran email, groupware, database, and remote login services.
 - Provided help desk support for ~25 workstations.

Side Projects

Port of Quake 3: Arena to the iPhone 3G.

- C, OpenGL ES, iOS
- <https://github.com/sethk/quake3-ios>
- Work now included in the ioquake3 project [<http://ioquake3.org>]

OS X driver for the Smartfish Engage keyboard.

- C++, IOKit, USB, Darwin
- Workaround for firmware that confuses the USB stack.
- <https://github.com/sethk/SmartfishEngageKeyboard>

Wrapper for Steinberg VST plug-ins to be used as Audio Units.

- C++, CoreAudio, Objective-C, Cocoa
- <https://bitbucket.org/sethk/vstau>
- Supports surround sound output.

References

(Available by request)