

Kurt Revis

krevis@snoize.com | <http://www.snoize.com>

[GitHub](#) | [Stack Overflow](#)

SUMMARY Senior/lead software engineer, specializing in developing iOS and Mac apps, but curious about everything.

I love solving hard problems, learning new domains, and creating big systems that are manageable and amenable to change. In order to help my whole team succeed, I find and remove obstacles, answer a lot of smart questions, and try to ask even more dumb questions.

EXPERIENCE AND HISTORY Software Engineer, [Apple](#)
August 2014 —

Engineer on UIKit, the UI framework that millions of iPhone, iPad, Apple Watch, and AppleTV apps are built upon.

For a small taste of what I've worked on, see our WWDC talks [Getting Started with Multitasking on iPad in iOS 9](#) and [Making Apps Adaptive, Part 2](#).

Staff Software Engineer, [Twitter](#)
July 2012 — August 2014

Lead engineer on the [Twitter Cards](#) canvas team.

Cards are a way of attaching dynamic interactive content to tweets, based on a custom markup language, with renderers integrated in the iOS, Android, and Web Twitter clients. Cards can:

- Present content like article summaries, photo galleries, and video players
- Show customized ads to promote [mobile apps](#), generate leads, and promote products
- Handle app "deep links", App Store integration, and install tracking
- Present custom experiences for events like World Cup scores and Oscars polls
- Allow third parties to integrate into Twitter

I started by implementing the cards renderer for iOS, then also took responsibility for the markup language compiler in the backend, written in Scala.

Coordinated with the teams running the cards backend and publishing tools, and assisted internal and third-party teams using and creating cards. Helped set our feature roadmap and quarterly goals, planned new features, and wrote architecture documents for engineers and execs.

Senior Software Engineer, [Avatron Software](#)
October 2011 — July 2012

Developed a new iOS / Mac remote access product, [Air Login](#).

On the Mac, implemented a system-level coordination daemon, per-user screen capture agent, and controller UI, all communicating via XPC. On iOS, prototyped the client app.

Senior Software Engineer, [Apple](#)
January 2003 — April 2010

Shipped several releases of [Keynote](#), [Pages](#), [Numbers](#), and iWeb, on both Mac and iPad.

For iWork on iPad: Designed and implemented a Core Animation-based graphics and interaction framework. On a tight schedule, we built a revolutionary touch-based UI, pushing the limits of an untried OS and hardware, and shipped all three apps on time with the first iPad.

For iWork and iWeb on Mac: Was lead engineer for our graphics framework, built on OpenGL and Quartz. Designed and implemented new features, from high-level UI to low-level details, across the whole suite. While we were primarily responsible for graphics and interaction, I also had a hand in text layout and rendering, document storage, import/export, performance, and HTML widgets.

Led a team of three engineers. Wrote, triaged, analyzed, and fixed thousands of bug reports. Ran daily scrum meetings, estimated schedules, planned feature sets for releases, wrote prototypes and documentation, and filed for patents. Coordinated with design, engineering, QA, product management, and marketing.

Senior Software Engineer, [The Omni Group](#)
April 1998 — July 2001

Worked on a variety of Mac OS X and WebObjects projects, for consulting clients and for Omni directly.

- Led development of a vertical-market store management app for Mac OS X, [Salon Transcripts](#).
- Added features to, and fixed bugs in, the web browser [OmniWeb](#) (winner of two Apple Design Awards in 2001).
- For the online store of a major software company: cleaned up the architecture, upgraded code to modern standards, and fixed bugs.
- Wrote Mac OS X, Windows, and WebObjects applications that worked with relational databases (Oracle, FrontBase, DB2, and Sybase).

Software Engineer, [Edmark](#)
January 1996 — April 1998

Developed and shipped 3 original multimedia education titles for Mac and PC, using C++ and in-house cross-platform libraries. Also developed a prototype implementation of a "kid safe" web browser for the Mac, using custom code on top of Internet Explorer. Collaborated with teams of programmers, artists, sound designers, and educators.

SKILLS

Expert in:

- iOS and Mac OS X app development
- Objective-C, Objective-C++, and C languages
- UIKit, Cocoa, AppKit, Quartz (Core Graphics), Core Animation, Grand Central Dispatch (GCD), XPC, Xcode
- Mac OS X and iOS performance tuning

Proficient in:

- Scala and C++
- HTML, CSS, JavaScript, XML, Protocol Buffers, Thrift
- Mac OS X and iOS technologies: OpenGL, launchd, Core Text, CoreAudio, CoreMIDI
- UNIX programming and scripting
- Source control with Git, Subversion, and CVS

Familiar with:

- Swift, Haskell, Java, Python, Ruby, SQL
- Web application development
- Web client implementation: Layout, rendering, network programming
- Database design

PATENTS

[Image mask interface](#), US Patent 8,209,632

A UI method for selecting a mask region for an image, used in iWork for iOS.

[Web Widgets](#), US Patent 8,667,415

A method of including self-contained snippets of web content inside a website builder app, used in iWeb for Mac.

EDUCATION

[California Institute of Technology](#) (Caltech)

B.S., [Engineering and Applied Science](#), concentration in [Computer Science](#)

June 1995

PERSONAL PROJECTS

[MIDI Monitor](#) and [SysEx Librarian](#)

Two [open-source](#) MIDI utility applications for Mac OS X. Useful for working with external MIDI devices (like synthesizers), troubleshooting, and testing apps and drivers.