

Kurt Revis

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

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

EXPERIENCE AND HISTORY Software Engineer, [Figma](#)
April 2022 —

Making Figma work well on mobile devices.

Software Engineer (ICT5), [Apple](#)
August 2014 — November 2020

Engineer on UIKit, the UI framework that millions of iPhone, iPad, Apple Watch, Apple TV, and Mac Catalyst apps are built on. It also powers the system UI for iOS, iPadOS, watchOS, tvOS, and CarPlay.

Lead engineer (aka DRI, "Directly Responsible Individual") for Dark Mode in iOS 13. This design refresh affected not just apps, but nearly all UI in iOS and iPadOS. Built prototypes, developed the real implementation, and designed the API. Worked with hundreds of people across the whole organization. Presented it to the world at WWDC 2019.

Also responsible for:

- Drag and drop on iOS: wrote the core infrastructure in apps, and a coordinating daemon. Developed the API, and helped apps adopt it.
- Pointer support on iPad (mouse and trackpad): Made scrolling work with trackpad gestures and mouse wheels, including some subtle but important interactions.
- Maintainer for scrolling, the most famous and ubiquitous interaction in iOS.
- Navigation and "split view" features in apps. And lots of other bits of UIKit.

Developer conference talks: [Implementing Dark Mode on iOS](#), [Introducing Drag and Drop](#), [Getting Started with Multitasking on iPad in iOS 9](#), [Making Apps Adaptive](#), and [Build for iPad](#).

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

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

Cards were 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 could:

- 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. Led a team of three engineers.

For iWork and iWeb on Mac: 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.

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

Developer on a variety of Mac OS X and WebObjects projects, both for consulting clients and for Omni itself.

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

Worked on 3 original multimedia education titles for Mac and PC, using C++ and in-house cross-platform libraries.

SKILLS

Expert in:

- iOS and Mac OS X app development
- 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:

- Swift, SwiftUI
- HTML, CSS, JavaScript, TypeScript, 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:

- Scala, C++, Haskell, Java, Python, Ruby, SQL

PATENTS

[Drag and drop for touchscreen devices](#), US Patent 10,444,976
[Drag and drop for touchscreen devices](#), US Patent 10,705,713
[Image mask interface](#), US Patent 8,209,632
[Web Widgets](#), US Patent 8,667,415

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.