ENGINEER, ARCHITECT, & MENTOR

Experience

2020-Now Senior Software Engineer, Siri, Apple Inc.



- · Core contributor to Siri's conversational engine runtime and owner of multiple foundational Siri frameworks
- Designer and implementor of a Swift API for Siri's "ontology" to take advantage of copy-on-write semantics, type safety, and idiomatic design patterns
- Leader of Siri's API Review team: this team reviews all APIs published by the Siri organization to ensure fitness, consistency, correctness, maintainability, and ergonomic fit.
- · Contribute cross-functionally across the Siri organization to enhance APIs, simplify interfaces, and teach fellow engineers
- · Actively involved in Swift Evolution, helping shape the future of the Swift language and core libraries
- Prototyped a next-generation API for defining Siri domains. While this never shipped, it was demoed to the highest levels of leadership and served as a testbed for concepts and patterns that are now part of Siri's internal domain developer experience.

2019–2020 Principal Engineer, Enterprise Technology, WeWork



- Led internal iOS guild; organized bi-weekly meetings and presentations for all iOS engineers across the company. Organized and carried out in-person guild events
- · Architect and developer of iOS SDK for "Teem" product to be used by internal and external client apps
- Performed code and API reviews across all iOS engineering teams
- · Taught and advised engineering teams on best practices and implementation strategies
- · Coordinated corporate sponsorship of Try Swift! NYC 2019. Presented on behalf of WeWork on "Designing Accessible APIs"

2019 iOS Instructor, Contractor, Lambda School



- Taught daily classes on iOS development to students. Topics included Core Data, architecture, algorithms, Objective-C, audio, video, etc.
- · Participated in daily "stand-ups" and answered student questions on a broad array of topics
- · Developed new and improved existing iOS curriculum

2017–2018 Senior iOS Engineer, Product Experience, Snap Inc.



- · Co-owner of core "Stickers" feature of Snapchat app
- Designed and implemented a core "suggestions" engine for surfacing contextually relevant stickers in different parts of the app
- · Performed investigation in to new concepts, rewrites, and refactoring
- Provided guidance on platform and architectural best practices

2015–2017 Maps Software Engineer, Apple Maps, Apple Inc.



- Independently developed and distributed an internal app to help engineers manage development environments. Used across
 the company and included in New Employee Orientation
- Primary owner of the Maps Extensions architecture in MapKit and Maps
- Worked with watchOS teams to lay the groundwork for including Maps suggestions in the Siri watch face
- · Worked with AppKit team to develop the "Tabbed Windows" feature in macOS Sierra
- Regularly interfaced with third-party extension providers; communicated bugs, provided and received feedback, prioritized feature work
- · Actively involved in cross-team API design and review

2013–2015 **Evangelist**, Worldwide Developer Relations, Apple Inc.



- Advised 3rd-party developers on best practices to adopt latest technologies
- Directed dozens of sessions at the annual World-Wide Developer Conferences (WWDC), which included organizing weekly rehearsals, providing guidance on slides, and critiquing presentation delivery
- Closely involved with the initial release of multiple high-profile technologies, such as Swift, WatchKit, HomeKit, HealthKit, CloudKit, and ResearchKit
- Hosted regular cross-functional meetings for HomeKit, HealthKit, and CloudKit teams
- $\bullet \ \ \text{Worked closely with HomeKit team to ensure API conformed to platform conventions}\\$
- · Helped developers adopt pre-release APIs for marketing promotions, screenshots, and on-stage demos
- · Independently contributed code to CloudKit to more efficiently and flexibly validate user-provided data
- · Actively involved in cross-team API design and review

2013–2015 Lead engineer, WWDC app (now the "Developer" app), Apple Inc.



- Incrementally modernized app codebase over three years
- Worked closely with Swift and WatchKit teams to dog-food technologies in the app. The app shipped as the world's first hybrid
 Objective-C and Swift app
- · Moved app backend from a custom in-house service to CloudKit
- Wrote and maintained several internal apps to help streamline publishing content
- · Helped several teams use the app as demo material in WWDC sessions

2010–2013 UIKit Framework Engineer, iOS Apps & Frameworks, Apple Inc.



- Re-architected UIDatePicker to support all calendrical systems, locales, and time zones
- · Wrote native pull-to-refresh implementation (UIRefreshControl), working closely with UI designers
- Fixed bugs in system-provided widgets, such as UIProgressView and UIButton
- · Actively involved in cross-team API design and review

2009–2010 Mac Software Engineer, Mozy



- · Rewrote app interface for version 2.0 to facilitate a more user-friendly experience
- · Wrote in-house tools to automate unit testing, localization, packaging, and static analysis of production code

2003-Now Independent Developer

- · Developer of Heathen, an iOS app to navigate the Utah DABS product inventory
- · Author of Time, a safe and correct date/time library for Swift
- · Authored DDMathParser, a highly-extensible library for parsing text into mathematical expressions
- Active in the Swift Evolution process on forums.swift.org
- In the top 0.05% of all-time contributors on stackoverflow.com
- Developed several iOS apps, including the 1.0 version of Mactracker

Presenting, Teaching, & Mentoring

- In-depth blog posts at <u>davedelong.com</u> on advanced programming topics, including principles of composeable networking stacks, conditional compilation, app architecture, and date-and-time calculations
- The Temporal Axis of Space-Time, NSSpain 2023
- · Designing Accessible APIs, Try Swift! NYC 2019
- The Laws of Magic, (several)
- · A Better MVC, (several)
- · Building Awesome Technical Presentations, (several)
- · Environmentally Friendly Apps, (several)
- · Advanced NSOperations, WWDC 2015
- · Architecting Modern Apps Pts 1 & 2, Architecting Modern iOS Games, iOS 7 Tech Talk World Tour
- Internationalization Tips & Tricks, WWDC 2012
- · iOS Printing System, WWDC 2011
- The Power of Predicates, MacTech Conf 2010

2008-Now Co-founder & Admin, UtahDevelopers.org

- · Admin of the Utah iOS & Mac Developers slack group (800+ local Apple developers)
- Organize weekly get-togethers, monthly meetings, and casual meet-ups
- · Actively participate answering questions and mentoring junior developers
- Frequently present at meetings on iOS and Swift topics
- · Currently investigating forming a non-profit organization around the group

2011–2015 Sunday School Instructor, LDS Church, Santa Clara, CA

- Taught bi-monthly 45-minute classes to 50+ adults
- · Adapted teaching methods to fit content, evolving congregation demographics, etc

2010–2013 Teaching Assistant, Cocoa Camp, Apple Inc.

- · Assisted Apple Developer Publications teach iOS development to university professors and students
- · Answered student questions and helped debug code

Volunteering & Education

2019-Now	Founding Board Member and Treasurer, Queer Community Allies
2020-Now	Co-founder Sanderson Collectors Guild

2020 Contributing author, Swift For Good, Volume 1: "API Design"

2019 Certificate of Mixology, Park City Culinary Institute

2010 Bachelor of Computer Science, Brigham Young University, Provo UT

Miscellaneous

- Heavily invested in reading and collecting Brandon Sanderson's works
- Still waiting with a patient, cut-flower silence for Patrick Rothfuss's sequel to The Wise Man's Fear
- · Lover of science fiction, fantasy, scotch, bourbon, and craft chocolate
- Extremely opinionated on date-and-time calculations and parsing mathematical expressions
- · Proficient in conversational Spanish