



## Brian Arnold

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### Summary of Qualifications

An accomplished software engineering manager and technical lead with lifecycle development experience in visual modeling software, video applications, and object oriented frameworks for desktop and mobile platforms.

- Designed and implemented rich direct manipulation user interfaces and software frameworks for iOS, macOS, Windows and UNIX in Swift, Objective-C and C++.
- An effective team player, coach, mentor, leader, planner, and communicator.
- Delivers high quality results on time, consistently exceeding customer expectations.

### Experience

#### **DIRECTOR, MOBILE ENGINEERING, WELLFRAME, INC.: BOSTON, MA, 2019-PRESENT**

Currently building a world-class mobile app development team that is changing the way digital health management supports people beyond the four walls of care delivery.

#### **CO-FOUNDER, PRESIDENT, DEV LEAD, FLAT EARTH STUDIO LLC: SOUTHBOROUGH, MA – 2009-PRESENT**

Designed, licensed content for, released and maintained a handful of free and paid lifestyle apps for iPhone and iPad in the iOS App Store.

- Awarded App Store Staff Selection in 2009 and 2011.
- Leveraged UIKit, StoreKit, CoreMotion, QuartzCore, Core Data, CloudKit, CoreGraphics, AVFoundation, XCTest, and more. Localized into 10 languages.
- Integrated Swift, Objective-C and C++; Git, continuous integration, and Xcode Server.

#### **SOFTWARE ENGINEERING MANAGER, MATHWORKS, INC.: NATICK, MA – 2005-2019**

Built and managed a team of 8, delivering native platform integration for all products. Evangelized platform technologies and tools, and coached dozens of developers.

- Instigated broad adoption of CppMicroServices, a service-oriented, SOLID-based architecture for dynamic, pluggable and declarative extensibility in products.
- Researched future products on iOS, Android, & ARM Linux in C++, Swift, & Java.
- Coordinated with customer support & development teams to revamp crash reporting.
- Advocated for support for new Windows & macOS integration features.
- Initiated *Mac birds of a feather* to foster knowledge sharing across the organization. Created, developed & promoted Mac training classes.
- Managed development of automatically generated Xcode projects and an interactive workspace generator to increase developer efficiency and internal Mac adoption.
- Led efforts to eliminate X11 on the Mac platform, and to conform products to Apple Human Interface guidelines.

**PRINCIPAL SOFTWARE ENGINEER, MEDIA 100, INC.: MARLBOROUGH, MA – 1998-2005**

Provided engineering, leadership and management for several major video editing applications; coordinated with customers, writers, quality assurance, and support to produce Emmy award winning products.

- Provided engineering and leadership for a team of 5 on the Media 100 HD product for Mac OS X, a video editing system that mixes multiple resolutions.
- Co-managed development of the 844/X video compositing system in C++ and MFC, StingRay and stl for Windows XP.
- Planned, engineered, and managed teams of 4 and 5 on Media 100 v6 and v7, balancing new features for existing & new customers.
- Improved the quality of the legacy C++ code base, resulting in fewer support calls, greater reliability, and new product opportunities.
- Integrated After Effects plug-ins in 844/X, and partnered with 3rd party developers.
- Developed interactive Internet streaming media features, and AppleScript automation.

**SENIOR SOFTWARE ARCHITECT, VIDEONICS, INC.: CAMPBELL, CA – 1997-1998**

Designed features for Effetto Pronto, a QuickTime-based C++ 3D video effects application. Developed reputation for the ability to rapidly fix complex product defects.

**FRAMEWORKS ENGINEER, APPLE INC.: CUPERTINO, CA – 1996-1997**

Developed MacApp R13 & Apple Class Suites, C++ frameworks for Mac OS.

- Refactored key core MacApp components into C++ class suites and applied modern language features.
- Designed framework conversion and updating strategies for the community of external developers. Updated the Ad Lib visual view editor.
- Presented at WWDC 1997. Sponsored 3-day Coding Kitchens in Cupertino & Munich, Germany.

**CO-FOUNDER, DIRECTOR OF SOFTWARE DEVELOPMENT, LUMINA DECISION SYSTEMS, INC.: LOS GATOS, CA – 1991-1996**

Shepherded a Unix decision analysis research tool to become the commercial software product "Analytica", for Macintosh and Windows 95/NT.

- Designed and implemented the hierarchical influence diagram user interface, multi-dimensional array browser and editor, graphing engine and extensions.
- Grew the company from 2 employees to 15, managing engineering efforts including Unix and Windows vertical market opportunities.
- Ported code between Mac, Windows and UNIX platforms, and translated from Object Pascal to C++. Co-wrote the original user guide and tutorial.

## Education

Carnegie Mellon University, Pittsburgh, PA – B.S. in Mechanical Engineering, 1988

## Industry Highlights

**2010: TECHNICAL REVIEWER, "DESIGNING THE IPHONE USER EXPERIENCE"**

Technical reviewer for "Designing the iPhone User Experience" by Suzanne Ginsberg, Addison-Wesley.

**1997: PRESENTER, APPLE WORLDWIDE DEVELOPERS CONFERENCE (WWDC)**

Introduced Mac OS 8 Appearance Manager MacApp classes and Ad Lib view editor support. Demoed migration scripts.

**1994–1996: FEARLESS LEADER, MACAPP2PPC DEVELOPER'S COOPERATIVE, VIA THE INTERNET**

Organized developers to port MacApp 2 to PowerPC. Sponsored a "coding kitchen" which included Apple Chief Scientist Larry Tesler. Shipped with Metrowerks CodeWarrior. Wrote articles for MacTech Magazine.