Brian Arnold

774-282-0632   mrlegowatch@mac.com   26 Fairview Drive, Southborough, MA 01772

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

SOFTWARE ENGINEERING MANAGER, MATHWORKS, INC.: NATICK, MA – 2005-PRESENT
Built and managed a team of 8, delivering native platform integration and support for all products. Evangelized platform technologies and tools internally, and coached developers on software development and user experience.

- Instigated wide adoption of CppMicroServices, a service-oriented, SOLID-based architecture for dynamic, pluggable and declarative extensibility in products.
- Researched and developed future product foundations on iOS, Android, and ARM Linux in C++, Swift, and 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.

CO-FOUNDER, PRESIDENT, FLAT EARTH STUDIO LLC: SOUTHBOROUGH, MA – 2009-PRESENT
Designed, licensed content for, released and maintained more than 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++.
- Added continuous integration with Git and Xcode Server.

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 the 1997 Apple Worldwide Developer's Conference and sponsored 3-day Coding Kitchens in Cupertino & Munich, Germany.

DIRECTOR, 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.

1994–1996: 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.