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Brian Arnold

Summary of qualifications

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

- Designed and implemented rich direct manipulation user interfaces.
- Experienced on multiple platforms: iOS, macOS, Windows and Unix.
- Experienced with Swift, Objective-C and C++, object oriented design, and frameworks design.
- An effective team player, individual contributor, coach, mentor, leader, planner, and communicator.
- Delivers high quality results on time, consistently exceeding customer expectations.

Work experience

2005–present: MathWorks, Inc., Natick, Massachusetts

Software Engineering Manager, Platform Evolution

Built and managed a team providing native platform integration and support for all products on mobile and desktop platforms. Evangelized platform technologies and tools internally, and coached developers on software development and user experience best practices.

- Researched and developed iOS, Android and ARM Linux foundations in C++ and Swift.
- Instigated wide adoption of CppMicroServices, a service-oriented architecture for pluggable and declarative extensibility in products.
- Advocated for support for new Windows & OS X integration features.
- Initiated *Mac birds of a feather* to foster knowledge sharing across the organization. Created, developed & promoted Mac training classes.
- Managed the development of automatically generated Xcode projects and an interactive workspace generator to increase developer efficiency and internal Mac adoption.
- Led the effort to eliminate X11 on the Mac platform, and to conform products to the Apple human interface guidelines.

2009–present: Flat Earth Studio LLC, Southborough, Massachusetts
Co-Founder, President, CEO, Lead Developer Ninja

Designed, licensed content for, released and maintained more than a handful of free and paid lifestyle mobile apps for the 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, Git, localization into 10 languages, and more.
- Integrated Swift, Objective-C and C++, XCode Server.

1998–2005: Media 100 Inc., Marlboro, Massachusetts
Principal Software Engineer

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

- Provided engineering and leadership for the Media 100 HD product for Mac OS X, a video editing system that mixes multiple resolutions.
- Co-managed, planned and developed the 844/X video compositing system in C++ and MFC, StingRay and stl for Windows XP.
- Planned, engineered, and managed the Media 100 v6 and v7 development, 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.
- Developed support for After Effects software filter plug-ins in 844/X, and worked with 3rd party plug-in developers on integration.
- Created XML interactive Internet streaming media features.
- Added extensive AppleScript automation support for key customers.

1997–1998: Videonics Inc., Campbell, California
Senior Software Architect

Designed and implemented features for Effetto Pronto, a QuickTime-based C++ multimedia 3D effects composition editor applications for a video effects card. Developed reputation for the ability to rapidly fix complex product defects.

1996–1997: Apple Inc., Cupertino, California
Frameworks Engineer

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.

- Initiated and completed update to 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.

1991–1996: Lumina Decision Systems, Inc., Los Gatos, California
Director of Software Development, Co-Founder

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.

- Led three Early Adopter releases to generate customer feedback.

- Grew the company from 2 employees to 15, managing engineering efforts including Unix and Windows vertical market opportunities.

- Co-wrote the original user guide and tutorial.

- Ported code between Mac, Windows and UNIX platforms, and translated from Object Pascal to C++.

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 "coding kitchen" which included Apple Chief Scientist Larry Tesler. Shipped with Metrowerks CodeWarrior. Wrote articles for MacTech Magazine.

Education

1984–1988: Carnegie Mellon University, Pittsburgh, Pennsylvania
Bachelor of Science in Mechanical Engineering

- Focus on manufacturing, design and computation.