Chris Araman

software architect, technical leader, language dabbler, music fan, gamer geek

Profile

Experienced engineering leader builds rock-solid modern apps, speaks several programming languages fluently, groks new languages and technologies quickly, and refactors spaghetti code for fun. I value removing code over adding code. I have managed a distributed engineering team spanning nine time zones. I'm currently looking for a senior technical role where I can roll up my sleeves and solve engineering problems in code.

I have designed software in companies both very large and very small, working on components of very large projects and on deliverables for key customers. I have designed and implemented components on my own, and have also led teams to meet regular release cadences. I feel a strong sense of ownership over my work and I am willing to go to bat for my team.

I am seeking opportunities to learn new technologies, design beautiful user experiences, and architect elegant code. I am very experienced at overcoming the challenges of working in remote teams and welcome the opportunity to do so again.

Employment History

Sabbatical / Open Source Contributor

December 2020 — Present

I've been on sabbatical since December 2020 in an effort to grow my skillset. Since then, I've gained deep knowledge of Swift, SwiftUI, Combine, and CloudKit, and have contributed to several open source projects using these and other technologies.

- Authored, published, and maintained CombineCloudKit, an open source Swift package to extend Apple's CloudKit framework for reactive, asynchronous record processing using Swift Combine. It is 100% documented and has maintained code coverage of more than 98%.
- Contributed to and maintained mas-cli/mas, an open source command line interface to the Mac App Store. It is used by Homebrew for managing App Store apps using the `brew bundle` command. According to Homebrew statistics, there have been at least 125,000 users of `mas` over the past year. My largest contribution was to convert this now very long-running project from an Xcode workspace to a modern Swift package. I also added support for Macs with Apple silicon.

Details

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Skills

Software Architecture & Design, User Experience Design

People Management, Project Management, Agile Methodologies, SDLC

Swift, C#, C++/CLI, C++, C

Objective-C, TypeScript, Node.js

Rust, Python, Java, JavaScript

Windows, macOS, iOS, Android, Linux

Swift Package Manager, CocoaPods, Carthage, Homebrew, npm

Xcode, Visual Studio, CMake, Android NDK/JNI, git, .NET, WPF, XAML, WiX, MSI, Burn, WIN32, COM

PREfast, ASan/TSan/USBSan, Veracode, SourceClear, Black Duck

GitHub, GitHub Actions, JIRA, Jenkins, Slack, Codecov.io

CI, CD, Build and Deploy Automation

fish, zsh, bash, PowerShell

AWS

- Contributed to mxcl/xcodebuild, an open source GitHub Action authored in TypeScript to invoke Apple's xcodebuild in a robust CI/CD environment. The tool uses semantic versioning to determine a range of Xcode or Swift releases for building and testing instead of explicit versions. It also detects current device and simulator targets instead of requiring users to hard-code device and simulator IDs, which are not reobust against runner image updates. My major contribution was to add support for code signing and provisioning profiles with an eye toward minimizing the risk of leaks of developer secrets via the GitHub Actions environment.
- Contributed to groue/CombineExpectations, a Swift package for testing Combine publishers and subscribers.
- Built a personal business card for Apple Wallet using PassKit.
- Attended 360|iDev 2021 in Denver, CO. Favorite sessions included sessions on iOS widgets, SwiftUI and Combine, Codable SwiftUI Views, Swift Concurrency, DocC, server-side Swift, technical leadership, rapid development, app pricing, and MongoDB with Realm.
- Participated in Advent of Code 2021, an annual coding and puzzle-solving event. This year, I decided to write my solutions in Swift.
- Built and maintained a Homebridge instance on a Raspberry Pi for family use. Contributed to several open source Homebridge plug-in projects using NodeJS and TypeScript. Maintained a HomeKit home with six bridges and hundreds of devices, scenes, automations, and shortcuts.
- Contributed to many other projects, large and small.

Member of Technical Staff at Qumulo, Seattle, WA, USA

March 2020 — December 2020

Building the next generation of hybrid cloud storage. Working on a small, very agile team, to deliver customer value as software improvements on a weekly basis.

- Designed and improved core technologies to the company's high-performance distributed file system.
- Developed new features using Test Driven Development, and backfilled existing functionality with additional test coverage.
- Defined and fleshed out user stories for upcoming feature work.
- Drove process changes within the tight-knit team.
- Collaborated with partner teams to deliver complete "vertical slices" of functionality.
- Wrote and presented Root Cause Analysis documents for release-blocking regressions.
- Partnered with another engineer to win two awards in the company-wide hackathon, designing and implementing a user-centered improvement to the product update experience.

Engineering Director, App Development at Fuze, Seattle, WA, USA

May 2015 — February 2020

Azure, GCP, Kubernetes, Multipass, Crossplane

Splunk, Kafka, Cassandra, Redis, Grafana

Languages

English

Arabic

Spanish

Links

GitHub
LinkedIn

Fuze fuels enterprise communications. We offer a seamless, modern user experience for calling, meetings and chat, regardless of the device you're using. At Fuze, I've built world-class mobile and desktop apps while expanding my knowledge of Unified Communications.

- Led a geographically distributed team of up to 11 client software engineers building a cross-platform app framework for Windows, macOS, iOS, and Android.
- Reduced YOY crash reports by 50% by analyzing crash data for Windows and Mac apps to bucketize, track, prioritize, diagnose, and resolve crashing defects.
- Implemented and maintained a fully non-blocking, asynchronous HTTP manager using libcurl and libuv that supports HTTP/2 multiplexing, proxy traversal, WebSockets, DNS caching, and client-side rate limiting.
- Built a desktop application shell using the Chromium Embedded Framework that bridged portable C/C++ application logic and web UI via a JavaScript event bridge, and maintained itself through automatic updates.
- Built a portable mobile meetings framework for iOS and JNI shared library for Android.
- Planned sprints, drove dependencies, balanced loads, and forecast velocities over dozens of monthly app releases. Designed and implemented a process to migrate several disparate JIRA workflows to a single, unified workflow shared by several partner teams.
- Raised the bar for security, code quality, and predictability by ensuring dependencies and tools were kept up-to-date, and platform requirements were being met.
- Diagnosed customer issues in real-time while using our own software, driving high-priority customer issue reports through engineering to fix release.
- Automated builds for several open-source libraries and frameworks across four client platforms.
- Debugged and diagnosed run-time and build-time issues in OSS and proprietary third-party codecs and libraries, driving solutions with vendors and OSS maintainers through patch submissions and pull requests.

Engineering Manager at FuzeBox, Seattle, WA, USA

January 2015 — May 2015

- Led client development team of 8 engineers across Windows, Mac, iPhone, iPad, Android tablet and phone and Browser apps.
- Analyzed memory statistics to find and fix leaks, circular references, and heap fragmentation in order to address stability issues on Windows x86, while introducing native support for Windows x64.
- Reviewed and improved development processes in Kanban style.
- Provide training and tools to QA and Customer Success teams for diagnosing client issues internally and with customer deployments.

Senior Software Engineering Lead at FuzeBox, Seattle, WA, USA

November 2014 — January 2015

- Led Windows app development team of 3 engineers.
- Improved engineering infrastructure for Windows team and broader client effort, reducing build times from ~2 hours to under 30 minutes.
- Drove engineering milestones up to larger client engineering team.

Senior Software Engineer at FuzeBox, Seattle, WA, USA

October 2013 — November 2014

- Designed, implemented and maintained UX features of the Windows app using .NET 4.5, XAML and WPF.
- Automated build of open source and proprietary C and C++ dependencies for Windows app.
- Contributed to cross-platform application layer in portable C++, targeting Windows, Mac OS X, iOS and Android devices.
- Opened and managed a new satellite office, enabling our Seattle workforce to increase by 175% in ten months.
- Designed and implemented a web-based installer with automatic, background update capability for the Windows app using Windows Installer XML (WiX) Burn.

Senior Software Engineer at Symform, Seattle, WA, USA

June 2012 — October 2013

Symform created a secure, low cost, peer-to-peer storage solution using modern cryptography, advanced network congestion prevention, and mathematically sound redundancy.

- Designed, implemented, tested, deployed and monitored an encrypted block network transfer library with predictive back-off to prevent congestion before it occurs.
- Maintained a hybrid, multi-platform build environment utilizing virtual and physical machines.
- Automated static code analysis and reporting.

Senior Development Lead at Microsoft, Redmond, WA, USA

December 2007 — April 2012

- Designed, developed and maintained a system to perform post-compile processes in parallel, spanning 1.5 million targets, including dependency inference, optimization, localization, signing, and packaging, greatly reducing build times.
- Disassembled and re-engineered an internal web service client in order to provide a much more reliable client experience and achieve higher throughput.
- Managed a team of build engineers to provide timely responses to queries from product developers, testers.
- Led the team to port a large set of legacy automation from Perl to C# to ease maintenance, and drive innovation of new functionality for our customers.
- Maintained code analysis tools and processes across the Lync organization.

- Maintained a robust, always up-to-date build environment that encourages developers to use widely accepted best practices and notifies developers of improvements that could be made without interfering with their work.
- Worked closely with performance, localization, sustained engineering, and release teams to ensure high quality and timely releases.

Software Development Engineer II at Microsoft, Redmond, WA, USA
June 2004 — December 2007

- Maintained Windows Messenger through end-of-life.
- Ported and maintained an internal UI framework to a new C++ project which was used in the Communicator and Lync clients.
- Deployed and maintained code analysis tools and processes throughout the Unified Communications organization.
- Developed and maintained major portions of Communicator UI.
- Led an effort to launch a new project based on a new UI framework, collaborating closely between teams in Redmond and Zürich.

Software Design Engineer at Microsoft, Redmond, WA, USA
September 2000 — June 2004

- Designed, developed and maintained a social, shared browsing feature in MSN Explorer allowing users to collaboratively share a browser while communicating with MSN Messenger.
- Developed and maintained a user interface integrating MSN Messenger functionality with MSN Explorer, allowing users to communicate easily with friends while using the web.
- Developed functionality exposing portable media players in Windows Explorer, including functionality to sync music between a user's computer and player.
- Mentored a new developer for her first year of development at Microsoft.

Internship

Software Design Engineer Intern at Microsoft, Redmond, WA, USA
May 2000 — August 2000

• Developed a media player widget for MSN Explorer, including integration with Windows Media Player.
• Performed fingerprinting of audio CDs to fetch track information from a Windows Media web service.

Education

College of Engineering, University of Notre Dame, Notre Dame, IN, USA
1997 — 2000

Certifications

Amazon Web Services Certified Cloud Practitioner
June 2020 — June 2023

Certificate

Patents and Applications

US8204937B2: Contact sidebar tile

June 2012

US7426537B2: Systems and methods for sharing dynamic content among a plurality of online co-users

September 2008

US7287054B2: Systems and methods for shared browsing among a plurality of online co-users

October 2007

US20060041893A1: Extensible device synchronization architecture and user interface

August 2004

US20050149213A1: Media file management on a media storage and playback device

January 2004