Isaac Halvorson

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Skills

Programming Languages

Swift, Bash, Python, Go, HTML/CSS, Ruby, Objective-C, JavaScript, Java

Experience in Building

CLI Tools (in Swift, Bash, Go, Python, Objective-C, Ruby), macOS and iOS apps, automated testing (using XCTest, Bash, Go, Ruby, Java)

CI/CD Tooling and Infrastructure Management

GitHub Actions, Jenkins, Xcode Cloud, Tart + Tartelet, Packer, provisioning and management of physical and virtual machines

Mobile Platform Tooling

xcodebuild, Xcode, Swift Package Manager, Tuist, Bazel, Fastlane, Gradle, Android Studio

Open Source

github.com/hisaac/workbench & github.com/hisaac/ci

Playgrounds where I experiment with tools and ideas related to macOS CI/CD, automation, system administration, and Apple platform development.

CenterMouse github.com/hisaac/CenterMouse

A macOS utility that moves the mouse pointer to the center of your display when the computer wakes from sleep, exits the screensaver, or from a user-defined keyboard shortcut.

Tuist | My Contributions

Tuist is a tool for creating, maintaining, and interacting with Xcode projects at scale. While migrating Target's iOS project from Bazel to Tuist, I began fixing bugs and adding features to Tuist.

Bitrise | My Contributions

Bitrise is a CI/CD platform built for Mobile DevOps. Much of their tools and infrastructure are open source, and I got the chance to contribute many changes while working for the company.

Writing / Appearances

Pre-Converting .xcresult Files for Codecov Using xcresultparser

A blog post for Codecov's technical blog explaining my methods for speeding up code coverage conversion for iOS projects using Codecov.

How to Speed Up Codecov Analysis for Xcode Projects, Revisited

About a year after my first post about converting Xcode's code coverage, I found an even faster way of conversion that also relies solely on tools included in Xcode's command line tools.

Hook Into GitHub Actions' Debug Mode

A "quick tip" post outlining how I hook into GitHub Actions' built-in debug mode to enable debug logging within the scripts run in my CI workflows.

Good, Better, Best: How Tandem Diabetes achieved iOS CI stability and speed with MacStadium

A case study I was interviewed for outlining my work migrating Tandem's build infrastructure to MacStadium's cloud-hosted Mac minis.

Work

Tandem Diabetes Care

Staff Developer Experience Engineer (March 2025–present) Senior Developer Experience Engineer (January 2023–March 2025)

I was the first hire for Tandem's nascent Mobile Infrastructure / Developer Experience team. Initially my focus was on the build system and CI/CD infrastructure for Tandem's iOS and Android apps. Since joining, my scope has broadened to include app architecture, helping to modernize the iOS and Android teams' development practices, and recently has grown to include CI and tooling for Tandem's embedded C codebase which runs on their insulin pumps.

- Built a powerful and flexible build automation system consisting of a well-crafted set of Bash scripts and GitHub Actions workflows.
- Migrated the mobile team's built infrastructure from a fragile set of Mac minis to cloud-hosted infrastructure on MacStadium running virtualized machines used for builds.

MO (October 2024–December 2024) Contract Mobile DevOps Advisor

Leveraging my expertise in mobile app DevOps and tooling, I advised MO's team on formulating a successful bid for establishing a platform team for the US Veterans Affairs' mobile app. The team secured the \$7M+/year contract.

Ensemble Education (March 2024–June 2024) Contract Mobile DevOps Engineer

I was contracted to help improve the existing developer tooling used by Ensemble Education's mobile app developers. This involved improving and augmenting their bespoke Swift CLI tool and GitHub Actions workflows.

<u>Bitrise</u> (April 2022–January 2023) Mobile DevOps Engineer

My responsibility at Bitrise was to build and maintain tools and infrastructure that mobile developers around the world rely on to build, test, and deploy their apps.

- Learned Go on the job and began contributing quickly.
- Championed improvements to Bitrise's internal tooling and infrastructure to improve developer experience and efficiency.

Target (April 2021–April 2022) Senior iOS Platform Engineer

I joined Target's iOS Platform team eager to learn more about platform development — the intersection of app development and DevOps. I quickly found my niche as the team's build-ops specialist, managing our build infrastructure, tools, and automation.

- Spearheaded and led a large migration of our iOS build system from Bazel to Tuist.
- Took over management of the team's languishing build infrastructure to improve its speed and reliability.
- Advocated for transparency and documentation by creating a team wiki, which became an invaluable resource.

Jamf Software (March 2019–April 2021) iOS and macOS Developer

I wore a few hats at Jamf, first working on a user-facing iOS and macOS app, then working on a low level macOS application with a command line interface — the backbone of Jamf's Mac management platform, *Jamf Pro*.

- Greatly improved the VoiceOver compatibility of <u>Self Service</u>, Jamf's primary user-facing macOS and iOS app.
- Helped maintain and improve multiple test systems used by my team and others within the company.

Q3 Contracting (July 2018–March 2019)

iOS Developer

C.H. Robinson (April 2017–July 2018)

iOS Developer

BBDO Minneapolis (August 2014–April 2016)

IT Support Technician

Apple

Quality Assurance Engineer (August 2013–November 2013) Genius, Apple Store Southdale (August 2012–August 2014)

Education

Prime Digital Academy (September 2016–January 2017)

Full-Stack Software Engineering Certificate

Prime is an intensive, 18-week web development bootcamp, focused on both technical and business skills. Here I learned HTML, CSS, and full-stack JavaScript development, as well as honed my public speaking, project management, and group work skills.

Institute of Production and Recording (2008–2010)

AAS in Audio Production and Engineering

University of North Dakota (2005–2008)

General Education Requirements