

Summary

Veteran software engineer with 10+ years of experience in iOS development, game development, and software architecture. Proven track record of delivering scalable, high-quality solutions, including work at Amazon. Expertise in native iOS development, multiple game engines, and scalable architectures. Adept at balancing rapid delivery with high standards of code excellence. Experienced in both small startups and large corporate environments, excelling in diverse team sizes and structures.

Skills

Programming Languages: C#, Swift, Objective-C, Java, JavaScript/HTML5, SQL, CSS/SASS, C/C++, Golang

Frameworks/Technologies: Godot Engine, Cocoa Touch, Core Data, Unity Engine, .NET Framework, CI/CD

Tools: Visual Studio, GitHub, Xcode, JIRA, Trello, Basecamp, Eclipse

Experience

Software Developer & Sole Proprietor

Pastadiablo, LLC: June 2023-Present

- Won the Black Cat Game Jam with a game about counting black cats who just won't sit still, Count the Voids:
<https://pastadiablo.itch.io/count-the-voids>
- Building a simulation/management tycoon game for PC using C# and the Godot Engine.
 - Developed a highly performant custom Behavior Tree library that utilizes Godot's Resource type, significantly improving speed and iteration time of new AI behaviors and decision-making in game.
 - Built content creation tools that allowed for rapid iteration and generation of hundreds of in-game items.
 - Developed the game logic, custom data structures, and architecture required for a complex simulation game.

Software Development Engineer II

Amazon: July 2017-June 2023

Worked as a fungible SDE on three different teams for 6 years, focused on native iOS development (Swift/Obj-C).

December 2021 – June 2023 – Simulation Technology, Simulation Infrastructure Team

- Golang and Java developer for SimInfra, constructing AWS infrastructure for customers to run robotics simulations at scale.
 - Primary customers included iRobot, Blue Origin, and internal Amazon Robotics teams.
 - Developed a Kubernetes-based solution for handling mounting output and input storage locations to one or many simulation containers for the new SimInfra backend using Kubernetes on AWS.

June 2018- December 2021 – Last Mile, Delivery Experience, On-Road Efficiency and Optimization (OREO) Team

- iOS developer for Amazon's pure native iOS Flex app, focusing on the Delivery Experience, primarily using Swift.
 - Each day 1+ million drivers used the app to deliver over 10 million packages. Performed live service operations and on-call for these customers, often having to dive deeply into metrics, tickets, and reports from the field to effectively mitigate high severity issues for customers in real-time.
 - Lead iOS dev on Biometrics, a project that used Biometric signatures (pictures) to help verify driver identities.
 - Lead iOS dev on Group Stops (Last Hundred Yards), a replacement workflow for the old Delivery Experience that significantly improved driver workflow for Stops that had many Substops (such as open-air apartment buildings).
 - Lead the team on Operational Excellence, with a focus on better logging, ticket management, and on-call practices.
 - Mentored 3 entry-level Developers, all were promoted to SDEII.

July 2017- June 2018 – Prime Now, Native Development Team

- iOS developer for Amazon's hybrid native iOS / React Native Prime Now application in a multi-disciplinary organization.
 - Developed Prime Now's new login screen, allowing users to swap regions and login at the same time.
 - Worked on native front-end of grocery focused features such as Search, Variable Weight ASINs, and Categories.
 - Developed and championed module-based architecture for native iOS development that improved scalability, readability, and modularity of the codebase that other teammates quickly adopted.

Software Developer & Sole Proprietor

Pastadiablo, LLC: August 2016 – July 2017

Started a contracting business to work full-time as a contractor for the Timmons Group on mobile and web projects.

2017

- Lead developer for *IFRIS Easements*, a legacy proprietary web app developed for the Virginia Department of Forestry.
 - Added key features for tracking structures on governmental conservation easements to the existing application.

- Developed a Presentation layer written in Javascript/Coffeescript, CSS/Sass, and VBHTML, a Logic layer written in C# that heavily used reflection and dependency injection and a Data Layer using a SQL server.
- Presented new features to customers in live demos, incorporated feedback and gathered requirements.

2016

- Sole Xamarin developer for *PLL Mobile*, a mobile cross-platform Xamarin demo application intended for enterprise use.
 - UI was constructed with best practice MVVM and the Xamarin Forms technology.
 - Interfaced with a Cityworks Server PLL API to display inspection tasks and allow users to complete inspections, uploading comments & inspection statuses such as Pass or Fail

Mobile Software Developer

Timmons Group – Division 506 – Enterprise Solutions: November 2014 – August 2016

While at the Timmons Group I developed native enterprise and commercial mobile applications for iOS devices.

2016

- Sole iOS developer for *MO Fishing*, a native Swift application developed for the Missouri Department of Conservation (MDC)
 - Provides users with information about all fish and fishable waterbodies in Missouri.
 - Uses Core Data with multiple Contexts to store, load, and display information concurrently without loading screens.
 - Interacts with multiple different servers provided by MDC to maintain up-to-date and relevant data using NSURLSession, updating every time the application wakes up.
 - Application was successfully launched and is available for download on the iOS App Store:
<https://itunes.apple.com/us/app/mo-fishing/id1132831682?mt=8>

2015

- Sole iOS developer for *Wyoming 511*, a native Objective-C app released to the app-store in partnership with the Wyoming Department of Transportation (WYDOT) to deliver information to travelers in Wyoming about the state of highways and roads.
 - Live updating and caching of information ensured all traveler data is up to date.
 - Used Core Data to store data downloaded from WYDOT servers.
 - Hands-Free/Eyes-Free feature determines relevant information to speak aloud based on users' current location.
 - The camera map layer allows users to view live feed stills from WYDOT road camera feeds.
 - Application was successfully launched and is available for download on the iOS App Store:
<https://itunes.apple.com/us/app/wyoming-511/id1077881610>
- Sole iOS developer for *Oregon Zoo: Elephant Lands*, a native Objective-C application released to the app-store for the launch of the Elephant Lands exhibit at the Oregon Zoo
 - Zoo visitors use the app to identify and report on the activities of elephants in the exhibit and see what other reports have been made so they know if they witnessed a rare activity.
 - Elphy Selfy feature used a custom camera view to overlay cartoon elephant trunks on taken pictures and encouraged users to upload to Facebook
 - The application was successfully launched and was available to download during the opening of the new exhibit. It is no longer available: <https://appadvice.com/app/oregon-zoo-elephant-lands/1068596007>

Software Developer

SRRN Games, LLC / Evenspring, LLC: May 2011 – November 2014

SRRN & Evenspring were sister companies owned and operated by the same partners and employees. Developed games and applications, both internally and as a consultant. Responsible for interviewing new hires and leading the development team in best practices & techniques. Worked with management to develop a set of best practices to use when working with clients to ensure accurate price quoting and proper utilization of software developers from the start of a project.

Education

University of Virginia, School of Engineering & Applied Sciences - *Bachelor of Science in Computer Science, 2011*