

Education

Rochester Institute of Technology
2013 - 2018

BS in Computer Science with a focus on programming languages and tooling.
Member of Computer Science House (<https://csh.rit.edu>)

Experience

Apple
2019 - present

Engineer on the UI Frameworks team for visionOS, a new spatial operating system for the Apple Vision Pro. Main developer working on three-dimensional drag-and-drop across apps in space. Contributed heavily to the SwiftUI and UIKit additions to support 3D content within applications, as well as the native look and feel for many of the standard UI controls.

Apple
2018 - 2019

Engineer on the Swift Compiler Frontend team. Worked on the stable module format that enabled Apple to embed Swift frameworks like SwiftUI and RealityKit in Apple operating systems.

Google
2018

Part-time remote contractor. Primary developer on an open-source Swift code formatting tool which is now the official formatter for Swift code.

Bryx
2013 - 2018

Lead iOS Developer working on Bryx 911, a cross-platform mobile app for Fire and EMS responders. Worked heavily with Swift, REST APIs, and MapKit. Used by hundreds of fire departments in the United States on a daily basis.

Apple
2014, 2016, 2017

Internships on the Swift Compiler team, the Swift Quality Engineering team, and the HomeKit team. Contributed heavily to the open source Swift compiler project on GitHub and created the initial version of SwiftSyntax, the library that powers the Swift compiler's macro system.

Projects

Trill
<http://bit.ly/trill-lang>

A general purpose programming language that compiles to native code using LLVM. The compiler is written in Swift, and supports most features of C, with a much stricter static type system.

Silt
<http://bit.ly/silt-lang>

An in-progress, dependently typed language that intends to compile to native code using LLVM. The compiler is written in Swift and aims to be a fast, functional programming language with no garbage collection.

LLVMSwift
<http://bit.ly/llvmswift>

An open source library that wraps the LLVM API in a native Swift wrapper. Used as the code generation backend library for Trill and Silt.

Achievements

2023 Presented *Elevate your windowed app for spatial computing* at Apple's WWDC

2019 Presented *Binary Frameworks in Swift* at Apple's WWDC

2017- Presented *Becoming an Effective Contributor to Swift* at AppBuilders 2018 in Switzerland,

2018 *Improving Swift Tools with libSyntax* at try`≡`Swift NYC, and
How to Clang your Dragon: Building a Compiler with LLVM at PlaygroundsCon in Melbourne

2014 Co-author on US Patent 20150350031 for HomeKit, owned by Apple, Inc.