

Hal Lee

Brooklyn, NY

+1 (555)-555-5555 • hal@lee.me • hal.codes •  hallee

Experience

Self-Published Apps

Harbor: a modern RSS reader

[harbor.page](#)

Multiplatform RSS and newsletter reader for iOS and macOS

2021

- Created a fully-featured multi-platform iOS, iPadOS, and macOS app using Swift, UIKit, and Catalyst
- Built a multithreaded and reactive network stack using Combine and URLSession for fetching RSS feeds
- Architected an RSS feed directory server backend using Vapor (Swift) and PostgreSQL, containerized and deployed on AWS ECS

Fore: smart portrait editor

[fore.photos](#)

iOS application for blurring the background of portrait photos using a neural network

2016

- Began development before Apple released “Portrait Mode” and achieved a bit of early success since the app worked even on older, single-camera iPhone models
- Designed and trained a custom deep neural network for semantic segmentation of images
- Ported Berkeley’s Caffe C++ framework to iOS for inferencing on device—this was before Apple released their Core ML framework and associated tooling

Professional

Quartz

New York, NY

Lead Engineer

April 2021—Current

- Created a GraphQL API client package used by both qz.com and iOS that automatically generates TypeScript and Swift typed queries from a shared set of GraphQL queries
- Built developer tooling to improve the development experience for qz.com’s React application including a GitHub Action to analyze the impact of pull requests on client JavaScript bundle sizes
- Introduced TypeScript to qz.com’s React application and helped convert existing JavaScript

Quartz

New York, NY

Senior iOS Engineer

February 2020—April 2021

- Led development of an all-new, member-focused news app for Quartz based on a new GraphQL API
- Implemented an automated deploy pipeline triggered by pull requests based on Fastlane and GitHub Actions
- Created a custom push notification CMS for our editors as a WordPress plugin

Quartz

New York, NY

iOS Engineer

March 2017—February 2020

- As the sole iOS developer at Quartz, added features to the Quartz Brief app including an augmented reality object viewer and interactive notifications

Boeing

Huntsville, AL

Software Engineer

September 2015—February 2017

- Worked with a small R&D team developing proof-of-concept computer vision software on the Nvidia TX1 embedded GPU platform for moving object detection and tracking using deep neural networks

Education

University of Alabama in Huntsville

Huntsville, AL

Optical Engineering, Bachelor of Science

2011—2015