

10+ years of experience building large, complex mobile and/or web products in specialized, small teams. I value pragmatism, accountability, creativity, and continuous learning.

Experience

Opencraft

Remote

Full-stack + Devops engineer

2019 May - 2020 Jun

- › Deployed customized instances of the Open edX platform for various universities and startups
- › Debugged application / infra failures using ELK stack, New Relic, Grafana dashboards
- › Used ansible to configure server roles for monitoring (prometheus exporters), service discovery (consul), log shipping (filebeat), and backups
- › Participated in routine infrastructure maintenance - example, replacing an HAProxy load balancer
- › Full-stack dev on core features of LabXChange, a greenfield online learning platform, using Python + Django, and Typescript + React + Jest + Puppeteer
- › Helped improve the GitLab CI/CD Pipeline for LabXChange, which deployed to separate Kubernetes clusters for each environment
- › Improved end-to-end testing automation for LabXchange to prevent non-deterministic failures
- › Contributed to Django-based tool for provisioning customized Open edX instances on OpenStack VMs

Ansible Terraform Docker Prometheus/Grafana Vault ELK New Relic Vault haproxy
PostgreSQL MySQL Python Django Typescript React

Otherworld

San Francisco (Remote)

Senior iOS Engineer

2018 Jun - 2019 Jan

- › Improved project maintainability by identifying tech debt and creating roadmaps for refactors
- › Implemented features related to image processing of camera / video content, navigation, feed, media presentation, messaging, deep linking, analytics
- › Reduced compile times from 5 minutes to 45 seconds by modularizing the codebase and implementing dependency injection
- › Worked closely with the project manager to improve our process, tools, and techniques related to sprint planning, task breakdown, and project tracking
- › Coordinated with server engineers to design APIs for new features

Swift iOS Python

UNSTATIC Tech

London (Remote)

Senior 3D Developer

2017 May - 2018 Jun

- › Developed C++ applications that generate data for architectural lighting control
- › Designed software architecture for the C++ side of the platform, established patterns and refactored to improve maintainability and readability
- › Developed generative algorithms and computer graphics routines used to feed data to lamps and LED walls
- › Developed GUI with React + Redux, embedded into the C++ app with Chromium Embedded Framework
- › Worked with lighting designers to execute visual concepts for specific customer needs
- › Developed various servers in nodejs to clean and transform data from disparate sources (such as public transportation) that the C++ apps could use conveniently
- › Developed web interface for customers to control visuals generated on the C++ side

- › Deployed applications to Linux-based servers which controlled lights on skyscrapers
- › Migrated C++ codebase to CMake to ease cross-platform build process

C++ OpenGL Javascript React Redux GLSL WebGL NodeJS Linux

Mentally Friendly

Senior Software Engineer

London, UK

2015 Sept - 2017 Mar

- › Played a key role in making technical decisions around application architecture, tooling, and workflow for various projects
- › Encouraged knowledge transfer and opened up communication across platform-specific developers by proposing programming paradigms, design patterns, generic abstractions, and testing practices which are useful regardless of platform
- › Developed several native mobile products, with a couple of projects in React Native, and one in C++
- › Deployed servers to transform data when APIs deviated too far from what mobile client needed
- › Was actively involved in product UI/UX design discussions

iOS Swift Objective-C React Native NodeJS OpenFrameworks C++

Carbon Five

Software Engineer

San Francisco, CA

2015 Jun - 2013 Dec

- › Developed much of the core architecture and flagship features for Thumbtack's 2 iOS applications
- › Taught experienced developers coming from a web background how to be productive on iOS, explaining the idioms and tools
- › As the team grew (about 8 iOS devs, 4 server devs), I played a key role in making technical decisions around application architecture, tooling, and workflow, helping to keep our team as a whole productive and making it easier to bring new developers on board
- › Was actively involved in design discussions both from a technical application architecture standpoint, and a product UI/UX standpoint
- › Participated in code reviews, merged pull requests
- › Established application architecture and design patterns as an early developer for C5's client, Thumbtack
- › Used Behavior-driven development practices. Unit tests, functional tests, and UI tests covered a large percentage of the codebase.
- › Developed on the server side in Python + Pyramid when the project was bottlenecked by the server-side backlog
- › Ensured Continuous Integration server (TeamCity) ran tests across all device versions and for both iOS 7 and 8 to prevent device-specific bugs

Objective-C iOS Python

CrowdCompass/CVENT

Software Engineer

Portland, Oregon

2012 May - 2013 Sept

- › Developed the iOS client with 3 other iOS engineers, working with the backend, dev ops, android, and design teams.
- › Learned to work as a group to make important decisions about large refactors and architecture/software design
- › Participated in code reviews to share knowledge and gain feedback about how to produce more quality code
- › Implemented or improved many of the core features that define the application today, including image and geo maps, theming, data synchronization, notifications, photo gallery, custom URL routing, ORM, database encryption, REST API's, social sharing, etc.
- › Improved release quality by automating integration testing of core features using calabash testing library + a mock server written in sinatra/ruby running on nginx/phusion passenger
- › Helped maintain and improve continuous integration environment (Jenkins) and automate complex build processes

- › Learned how to track my time and give estimates for feature implementations, working with a ticketing system
- › Learned how to performance tune iOS applications and watch out for memory leaks with Instruments
- › Became more proficient with many developer tools including git, vim, zsh, bash, and various unix utilities

Objective-C iOS Ruby

Synergy Association

Fort Smith, AR

Web Application Developer, Linux sysadmin

2007 Apr - 2008 Dec

- › Developed a cross-platform web application named “Synapse” that utilized a mixture of web technologies to create a high performance, scalable, and secure web-based application to assist the client in managing his wholesale import business.
- › Developed on the CakePHP web framework with ExtJS cross-browser JavaScript UI library in order to create a rich, user-friendly interface with a powerful back-end. Custom themes and implementations of some widgets done for ExtJS.
- › Designed schema for the Synapse MySQL database and configured a DBMail SQL-based e-mail server for email backend.
- › Included features such as parsing email body from travel confirmation emails and automatically adding them to the user’s calendar, scraping data from spreadsheets that were sent by email to import into product database, timelinstyle navigation of all files exchanged between customer and their vendor, and more.

PHP Javascript Apache Linux CakePHP ExtJS MySQL

Lairamore

Fort Smith, AR

Web Application Developer, Linux sysadmin

2006 Feb - 2008 July

- › Developed application to receive orders, organize inventory, manage accounts and pricing, keep track of contacts, and generate sales quotes and reports
- › Built parser to import existing data from Excel spreadsheets into the database
- › Designed normalized schema for database
- › Built, configured, and maintained a Linux-based server to run the application and store files
- › Designed and implemented a small network for the office computers

PHP Javascript CSS HTML Apache Linux MySQL

Education

Bachelor of Science, Information Technology (Networking specialization)

2005 - 2009

University of Arkansas

GPA: 3.6 of 4.0

Technical Skills

Languages	Javascript, dart, Python, GLSL, C++, Objective-C, Swift, C
Databases	Postgres, MySQL, SQLite, MongoDB, MS SQL Server
CI	Jenkins, CircleCI
Containerization, VM	Docker, Kubernetes, KVM/QEMU
Webservers	nginx, apache
Build Tools	GNU Make, CMake, Gradle, Ninja, Webpack, Babel
Favorite tools	bash, emacs, tmux, awk, sed, jq, mosh
GPU	OpenGL, WebGL, Three.js
Frontend	React, Redux
Mobile	Flutter, iOS, React Native
Backend	Django, Flask, Sinatra