

Senior Software Engineer	Whitepages	JUL 2022 - MAR 2024
<ul style="list-style-type: none"> Engineered APIs, page redesigns, performance enhancements, bug fixes, SEO & CRO initiatives, payment features, customer service and fraud tools, & CMS integrations for a high traffic ecommerce site Drove quality initiatives around static types, language upgrades, automated testing, and CI/CD Supported, mentored, and fostered positive relationships among engineers across teams Defined, reviewed, and drove project proposals, tasks, design documents, processes, and code changes Technologies: TypeScript, Kotlin, Python, Vue.js, Kubernetes, Sanity, Amplitude, Sumo logic 		
Senior Software Engineer	Marco Experiences	NOV 2021 - JUN 2022
<ul style="list-style-type: none"> Automated customer and vendor onboarding processes (Airtable, Sanity, Retool) Developed & maintained web, payment, and permissions systems (TypeScript, React, Next.js, Auth0) 		
Software Engineer 2	Microsoft (IC3)	JUL 2020 - NOV 2021
<ul style="list-style-type: none"> IC3 powers video and related services for Teams, Skype, etc, serving hundreds of millions of users Operated, maintained, & automated data collection and ML training pipeline for background replacement Designed, implemented, and optimized a distributed seating algorithm for MS Teams video call attendees 		
Software Engineer 2	Microsoft (Mixer)	JAN 2018 - JUL 2020
<ul style="list-style-type: none"> Served tens of thousands of concurrent streamers and viewers and millions of monthly active users Worked on the video team hardening, scaling, and maintaining production services and infrastructure Co-developed patented adaptive bitrate system for FTL, our industry leading sub-second latency protocol Led the team through a culture change focused on quality and high reliability systems <ul style="list-style-type: none"> Led service migration to a CI/CD model leveraging Azure DevOps and Docker containerization Convinced management of the value of testing and fought to secure budget to support it Led development of front-end test suite to verify video playback and quality across browsers and devices Led development of end-to-end video streaming test suite that ran nightly and gated production releases Introduced an active network monitoring system deployed across 21 global data centers Optimized cloud storage use for video uploads resulting in ~\$3M in annual savings without cutting features Maintained and developed software in golang, C, C++, C#, Node.js, TypeScript, Bash, and Haskell 		
Software Engineer	Sunlight Payments	JUL 2017 - DEC 2017
<ul style="list-style-type: none"> Employee #9 at a startup payments platform with a highly experienced, remote engineering team Maintained and developed features for AWS infrastructure, business logic, REST API, and web UI Used advanced Scala features including free monad based DSLs and generative property-based testing 		
Software Engineer	Electronic Arts	SEP 2015 - JUN 2017
<ul style="list-style-type: none"> Led & coached small team in building a real-time dashboard for game client telemetry data <ul style="list-style-type: none"> Developed CI/CD pipeline with Gitlab, automating deployment of front end resources to S3 Built system to ingest and summarize Kafka events and push live updates to dashboard over WebSockets Built Node.js application to manage ingestion of events, preprocessing in SQS, and staging in S3 Built a customer incident dashboard using Node.js microservices, Redis, React, D3, and JIRA REST APIs Built a dashboard remote and admin console app using Node.js, Cordova, WebSockets, S3, and EC2 Built system to allow users to control content displayed on video wall dashboards from mobile clients Performed ad hoc data analysis and reporting tasks in R, plotting with ggplot2 		
Research Assistant	UCSD CALAB	JUN 2013 - SEP 2013
<ul style="list-style-type: none"> Led development of user activity prediction app using GPS, gyroscope, accelerometer, and mic data Wrote Python server (numpy + mply) to extract feature vectors, train SVM, send predictions to iPhones 		
Engineer, Intern	General Atomics	2012 - 2013
<ul style="list-style-type: none"> Worked with R&D team under clearance to develop flight planning and simulation tool in Java 		
Instructor, Volunteer	CALIT2	2012 - 2013
<ul style="list-style-type: none"> Improved existing schematics; organized and led occasional guitar distortion pedal workshops 		
Sergeant (E5)	US Marine Corps	2004 - 2009
<ul style="list-style-type: none"> Served as a radar technician and marksmanship instructor; taught, coached, supervised 1000+ Marines 		
Bachelor of Science	Electrical and Computer Engineering	UCSD
		MAR 2015
<i>Current as of 2024-07-19</i>		