

Senior Software Engineer**Whitepages****JUL 2022 - MAR 2024**

- Engineered APIs, page redigns, performance enhancements, bug fixes, SEO & CRO initiatives, payment features, customer service and fraud tools, and 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**

- 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**

- 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**

- 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
 - 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**

- 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**

- Led & coached small team in building a real-time dashboard for game client telemetry data
 - 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**

- Led development of user activity prediction app using GPS, gyroscope, accelerometer, and mic data
- Wrote Python server (numpy + mlp) to extract feature vectors, train SVM, send predictions to iPhones

Engineer, Intern**General Atomics****2012 - 2013**

- Worked with R&D team under clearance to develop flight planning and simulation tool in Java

Instructor, Volunteer**CALIT2****2012 - 2013**

- Improved existing schematics; organized and led occasional guitar distortion pedal workshops

Sergeant (E5)**US Marine Corps****2004 - 2009**

- Served as a radar technician and marksmanship instructor; taught, coached, supervised 1000+ Marines

Bachelor of Science**Electrical and Computer Engineering****UCSD****MAR 2015***Current as of 2024-04-22*