

# Andy Barron

Full-stack engineering leader

B.S. Computer Science  
University of Virginia

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## Skills

### Software engineering

Technical leadership  
Distributed systems  
Full-stack development

### Programming languages

TypeScript, JavaScript  
Ruby, Python  
Java, Rust

### Technologies

NodeJS, React  
SQL, GraphQL, AWS  
Docker, Kubernetes

### Tools

Linux command line  
Git version control  
Webpack, Vite

## Experience

Stripe • Seattle, WA (remote)

### Software Engineer III, Admin Platform • Jan 2021 – Jan 2024

TypeScript, React, Ruby, GraphQL, MongoDB, AWS, Kubernetes

- Built batch upload capability (interface & business logic) for internal task runner, reducing incident response time by hours for affected teams.
- Reduced build times for internal tools by 10x by optimizing JavaScript development build process.
- Migrated internal task runner from legacy AWS infrastructure to Kubernetes workloads.
- Feature development and maintenance for security-first internal app platform and associated security controls.
- Mentored team members about React and front-end best practices.

Mothership • Los Angeles, CA

### Engineering Manager (back-end) • Jul 2020 – Jan 2021

TypeScript, NodeJS, PostgreSQL, Firebase, Kafka, Kubernetes

- Worked with engineering leadership to define OKRs.
- Managed task allocation, prioritization, and key technical decisions for the back-end engineering team.
- Maintained core service functionality shared between services, such as database migrations, error handling, logging, and routing.
- Supported development of new product features by managing back-end logic, database schemas, and front-end integration.

### Senior Software Engineer II (back-end lead) • Feb 2020 – Jul 2020

TypeScript, NodeJS, PostgreSQL, Firebase, Kafka, Kubernetes

- Managed task allocation, prioritization, and key technical decisions for the back-end engineering team.
- Built core back-end service kit containing code for functionality shared between microservices, such as logging, routing, and request handling.
- Broke out freight pricing engine into its own independent microservice.

### Senior Software Engineer II (front-end) • Dec 2019 – Feb 2020

TypeScript, React, NodeJS, Vercel

- Created technical design and architecture for two new React apps (redesigned customer dashboard and marketing website).
- Implemented core features and design system abstractions for front-end apps.
- Worked closely with marketing & design teams to ensure UI exactly matched mocks.

## Skyryse • Los Angeles, CA

### Senior Software Engineer • Aug 2019 – Nov 2019

*TypeScript, NodeJS, Swift, ARKit/RealityKit, GraphQL*

- Built multiple microservices to manage helicopter flight tagging, polling users for the next city to open, and user roles & permissions.
- Created GraphQL API gateway that managed API calls between back-end microservices and client apps/browsers.
- Created an application to read raw input from USB devices and transmit UDP packets to remote control autonomous helicopter.
- Prototyped and developed Swift augmented reality navigation app to show helicopter pilots/passengers their flight path and waypoints in real time.

## Maestro • Los Angeles, CA

### Senior Software Engineer • Jul 2017 – Aug 2019

*JavaScript, React, Redux, NodeJS, Kubernetes*

- Technical lead for Web front-end re-architecture using modern UI tools (React/Redux). Built prototype, set up tooling and continuous integration, and directed technical decisions for key features.
- Set up new back-end microservice architecture, including HTTP service abstraction layer, deploy management, and continuous integration and deployment.

## Google, YouTube Ad Formats & Infrastructure • Los Angeles, CA

### Software Engineer • Oct 2015 – Jul 2017

*JavaScript, Python, Java, Polymer*

- Feature development and maintenance of full-stack ad infrastructure, including ad targeting, advertiser billing, and serving ads to users.
- Migrated front-end code from plain JavaScript to Polymer framework.

## AirMap • Los Angeles, CA

### Software Engineer (contractor) • Sep 2015 – Oct 2015

*Python, JavaScript, NodeJS*

- Created extensible data-mining program to extract and consolidate government-mandated flight restrictions from disparate third-party APIs.
- Rebuilt data API to serve flight restriction data for distributed drone network. Increased throughput of original API by more than 10x.

## University of Virginia, McIntire Department of Music • Charlottesville, VA

### Student Webmaster • Aug 2011 – May 2015

*HTML, CSS, PHP, Java, Python*

- Website administration, updates, and maintenance for University music department's website. Server improvements and file management.
- Wrote migration programs (scraper & uploader) to mass import static event pages into Drupal CMS entries.

## NASA, Langley Research Center • Hampton, VA

### Engineering Intern (paid) • Summers 2011, 2012, 2013

*Java*

- Summers 2011 and 2012: Safety-Critical Avionics Systems Branch. Built data transfer layer for autonomous, traffic-avoiding drone.
- Summer 2013: Unmanned Aircraft Systems Airspace Operations Challenge. Developed GUI application to wirelessly control fleet of drone planes and display their locations on an interactive satellite map.