

Andy Barron

Full-stack engineering leader

B.S. Computer Science
University of Virginia

Contact:
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Skills

Software engineering

Technical leadership
Distributed system design
User interface development

Programming languages

TypeScript, JavaScript
Python, Ruby
Java, Rust

Technologies

NodeJS, React
SQL, GraphQL, AWS
Docker, Kubernetes

Tools

Linux command line
Git version control
Webpack bundler

Experience

Stripe • Seattle, WA

Software Engineer III, Admin Platform • January 2021 - January 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) • July 2020 - January 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) • February 2020 - July 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) • December 2019 - February 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.

Skryse • Los Angeles, CA

Senior Software Engineer • August 2019 - November 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 • July 2017 - August 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 • October 2015 - July 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) • September 2015 - October 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 • August 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.