Andrew Nicholson

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Engineering leader with 12+ years of experience building reliable and scalable distributed systems, frontend-to-backend. Throughout my career, I've consistently driven high-impact initiatives, leveled up my teams through mentorship and continuous improvement, and crafted systems that meet the needs of the business without compromising technical quality. I thrive on collaborating with great engineers and great leaders to create great products.

Skills

Distributed Systems • Organizational Leadership • Technical Mentorship • Systems Thinking • Software and Data Architecture • Full Stack Engineering • Domain Driven Design • Event Driven Architecture • Serverless Architecture

Technical Expertise

8+ years - Ruby on Rails • PostgreSQL • React • AWS • JavaScript
5+ years - TypeScript
3+ years - NodeJS • AMQP
2+ years - Java
1+ years - Kafka

Work Experience

Founding Staff Software Engineer at Endless Commerce • *5/2025 - present, remote*

- Joined as backend engineer #3
- Improved reliability of the core distributed system
- Implemented high-impact integrations product with a scalable customer growth design
- Drove CI/CD pipeline and process improvements to reduce deployment time and mitigate risks
- Built a flexible multi-tenant business process automation system with a templating library and state machine framework

Founding Engineer / Staff Software Engineer at Rula Mental Health • *12/2021 - 03/2024, remote*

- Joined as engineer #3
- Built foundational services and products, including a resilient email system, partnership integrations, and web portal products for both patients and therapists
- Drove cross-functional initiatives, including a process to develop an SDLC and an org-wide reference architecture based on Domain-Driven Design, Event-Driven Architecture, and Command/Query Responsibility Segregation
- Implemented a Transactional Outbox and Durable Workflow Execution Environment to provide the organization with solutions to widespread distributed systems problems

Staff Software Engineer at Sift • *01/2021 - 12/2021, remote*

- Joined through the 2021 acquisition of ChargeBack
- Designed and led development of a new data architecture to enable flexible product support for customers, unlocking a scalable business strategy
- Led product engineering of a low-code business rules platform

Senior Full-Stack React/Ruby on Rails Engineer and Team Lead at Spatial Networks • *03/2020 - 12/2020, remote*

- Led development and took ownership over project success for a strategic low-code platform feature using Ruby on Rails, React, and PostgreSQL
- Provided technical leadership and mentorship in the company's product-focused engineering team
- Advocated for industry best practices around DevSecOps and drove a cultural shift to adopt new processes in line with those best practices, including Kanban, automated testing, and CI/CD

Full-Stack React/C# Engineer at Pluralsight, LLC • *11/2018 – 11/2019 in Salt Lake City, UT and remote*

- Joined through the 2019 acquisition of GitPrime, Inc.

- Delivered high-visibility, strategic integration between GitPrime and Pluralsight
- Engineered web applications with TypeScript, React, Redux, C#, and PostgreSQL

Full-Stack React/Ruby on Rails Developer at SciMed Solutions, Inc. • *02/2016 – 11/2018 in Durham, NC and remote*

- Engineered web applications for clients in agricultural and medical research
- Consistently delivered high-quality software for SciMed's biggest clients using React, Redux, Ruby on Rails, and SQL databases

Full-Stack JEE Developer at Red Hat, Inc. • *08/2013 – 06/2015 in Richmond, VA and remote*

- Contributed to high priority projects
- Mentored junior developers

Software Developer Intern at Noblis, Inc. • *06/2012 – 01/2013 in Danville, VA and remote*

- Led development of a Grails web application that displayed results from computations run on a Cray XMT2 supercomputer

Personal Projects

systemicity.blog • *06/2024 - present*
Technical blog that aims to simplify complex topics in distributed systems and software organizations.

camsizes.com • *01/2020 - present*
Rock climbing gear comparison tool, used by many climbers to compare climbing cams made by different manufacturers.

use-observable-reducer • *02/2021 - 03/2021*
React hook that creates an RxJS subject around a React reducer function, like redux-observable but for modern React using hooks instead of Redux. I built this because there was not a tool to support using RxJS with the use-reducer hook at the time.

MatchDay • *08/2018 - 09/2018*
Meteor web application that displays soccer matches for a given day, without revealing scores. I built this so I could browse which matches were on and watch them from the beginning without spoiling the result.

raspi-temperature-server • *11/2017 - 12/2017*
Server and web application for monitoring a Raspberry Pi temperature sensor. I built this to track the temperature of a fermentation closet, so I wouldn't ruin my sauerkraut.

Education

University of Virginia, College of Arts and Sciences • *08/2009 - 05/2013, Charlottesville, VA*
Bachelor of Arts, Double Major in Computer Science and Philosophy