

# Jonathan Camp

## Full-Stack Developer

### About Me

I'm a full-stack developer comfortable with learning and implementing new frameworks and technologies to fit in to a microservice architecture. I've helped multiple companies to reduce complexity by incrementally migrating aspects of their monolithic legacy platforms over to modern code style and patterns.

### Contact Information

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### Skills & Expertise

#### ★★★★ Proficient

Networking in AWS, EC2, ECS, EFS, Fargate, Lambda, S3, Snowflake, RDS Aurora, CloudWatch, Javascript, Nodejs, React, Java, Github Actions (CI/CD), Git

#### ★★ Comfortable

Glue, Athena, Fluentd, Apache Spark, Apache NiFi, Apache Airflow, AWS Systems Manager, EventBridge, CodeArtifact, CodePipeline, Cloud9, AppSync, Amplify, CloudFront, Batch, EMR, Certificate Manager, Route53, Elastic Container Registry, Golang, Python, Kinesis

#### ★ Familiar

Kafka, Kubernetes, Ruby on Rails, PHP, ASP.NET MVC Core

### Professional Experience

#### Senior Software Developer at Revcontent

September 2019—Current

Key developer working cross-functionally to make changes across large distributed cloud infrastructure to help further goals of reliability, feature development, cost-savings, observability, developer experience, and revenue growth.

- Infrastructure as Code migrations of legacy projects into Cloudformation and Terraform.
- Architected and solely developed React + AWS Amplify + AWS Cognito dashboard to expose custom functionality to a key client
- Spearheaded research and development of new architecture utilizing Terraform, Fargate, App Mesh, with code written in Golang in order to carve out key sections away from our Legacy Java monolith in order to drive feature development and increase request efficiency. We were able to slowly carve more and more of this away until we could fully deprecate the legacy system and were about to reduce our Cloud costs by more than half.
- Brought new functionality to a legacy PHP UI by injecting React microfrontends via Module Federation allowing for developers to use modern tools and patterns to contribute feature slices without the mental overhead of the whole legacy system.
- Architected and implemented the data collection of our logging events into Snowflake, allowing data analysis and reporting across the business. Exposed data exploration to analysts via Looker.
- Helped to restructure our data projections processing from batch processing to event-driven processing in order to reduce complexity, cost, and time delay.
- Helped move development environments from provisioned architecture to a Cloud9 based docker environment accessible through VSCode Remote to make development environments low-cost and repeatable.

#### Senior Software Developer at Sylint

September 2018—September 2019

- Helped architect and build a distributed, event-driven system that ingested security reports and data into a actionable dashboard for security to monitor and act on. Tech stack included Docker containers on Azure, AD connect, ASP.NET MVC Core, Angular 7, Solr, SQL Server.
- Supported and improved legacy PHP/Laravel system that required regular maintenance and security upgrades including PHP version upgrade from 5 to 7.
- Investigated client security breaches/vulnerabilities, malware attacks, etc. for post-event root cause analysis, mitigation, and reporting.
- Supported research for expert witness testimony in court cases regarding claims of theft/infringement.

## Lead Engineer at AdRizer

August 2016—September 2018

Leading a team of 5, I wrote primarily serverless systems in AWS using React, CloudFormation, DynamoDB, Lambda, API Gateway, Step Functions, and a variety of other AWS services. Heavily involved in the business side as well, acting as lead innovator and helping to drive revenue and cut costs. In charge of designing, implementing, and operating a system that informs \$50k–\$100k in expenditures per day. Automate all infrastructure changes and code deploys.

- Added new functionality to Ruby on Rails + Angular project. Starting at AdRizer, I did not have a foundation in Ruby, but was able to quickly learn and develop in this ecosystem.
- Created a time-series regression model that allowed us to automatically choose advertisement bid prices based on past performance, helping to capitalize on off-peak price changes.
- In parallel, re-architected infrastructure around a serverless philosophy, with continuous delivery. We used AWS lambda in a pilot project to allow us to replace our expensive Storm cluster for click-stream processing, saving the business thousands per month in server costs, and saving the team from many ops issues. Then, after the click-stream processing was replaced, we switched to a serverless Node + React infrastructure relieving ourselves of maintenance costs while allowing us to scale.
- Everything we created at AdRizer was done with immutable infrastructure in mind, so we used CloudFormation to describe all infrastructure creation and changes. Alongside, all deployments were also updates to the stack, so upon release in CircleCI, we would pull down all configuration values from a central store in AWS (Secrets Manager) and deploy the code artifacts as part of the CloudFormation deployment. This allowed us to make low-cost staging and QA environments that exactly matched our production infrastructure and deploy the same code everywhere. This helped us sort out all our development and integration mistakes with confidence.
- Learned the business of pay-per-click marketing, bringing my insights into features that help grow the business.
- Authored monitoring system around the specific pain points in our business, alerting engineering and/or advertisers when there were problems and preventing us from making the same mistake twice.
- Administered Linux servers, and migrated away from manually maintained servers to immutable infrastructure using Elastic Beanstalk/ECS.
- 24/7 support on all systems, helping to quickly resolve issues and perform root cause analysis to determine how to prevent future issues of the same type.
- Helped to increase security of infrastructure by using best practices on all new projects, and actively penetration testing existing infrastructure, and refactoring to close attack vectors.
- Performed data analysis on traffic to help determine sources of invalid traffic so that we could block those sources and reporting on this to help get refunds on past traffic.

## Senior Software Developer at Ned Davis Research

January 2013—August 2016

Worked on a finance-oriented Domain Specific Language and libraries used to perform quantitative analysis. Some technologies I used to contribute to this were Java, Groovy, JSP, Spring Framework, Databases exposed through RESTful APIs, Javascript, JQuery, JSON, RPC and automated testing. Rewrote business systems and processes to bring them in-house and cut outsourcing costs by tens of thousands per year.

- Provided maintenance development and support for existing Java Tomcat applications.
- Added Jenkins as a CI workflow into existing projects, helping to formalize our development process and provide repeatable, testable releases.
- Replace an expensive legacy out-sourced pdf report process by developing a Java API + Angular Frontend + D3 charting solution that was able to act as a replacement to the print process, as well as allowing web access and interactivity as new features. Careful use of markup and css allowed for page-for-page parity with old report.
- Refactored all products to allow for sales of packages, rather than an all-or-nothing sales approach.
- Given the problems we were having investigating problems across our distributed architecture, proactively investigated APM solutions, created a proof of concept, and convinced the department of the need. Helped to implement Dynatrace across our architecture and provide training so that everyone would be able to use it as an investigative tool.
- Acted as a technology evangelist, helping to bring industry improvements into the organization. For example, in a greenfield development project, I showed how we could utilize microservices using REST APIs vs. the current state of a single API project that exposed functionality via RPC.
- Created a real-time web dashboard to hook into Interactive Brokers TWS API to subscribe to user signals and display them.
- Migrated from custom Tomcat CMS system to Liferay as a CMS. This allowed for a more streamlined publication workflow and for administration to be performed by users outside of engineering.
- Worked closely with quantitative analysis team to help implement their mathematical solutions with proper design patterns.

## Software Developer at McKesson Automation

November 2011—December 2012

*previously – Product Support Specialist II August 2008—November 2011*

Agile software development in C#, ASP.NET, VB.NET, and Java. Implemented a major compliance change across entire line of products. Helped build Service Oriented Architecture and front-end website for medication delivery network.

- Using ASP.NET MVC, we developed a service oriented architecture based project using domain driven design principles. All development was heavily tested (unit, functional, integration, performance, end-to-end).
- Maintenance development and support of a large variety of medical systems software.

As a support specialist for medical automation technology, I became accustomed with diagnosing and solving hard-to-reproduce issues in a variety of programming languages/paradigms. In this position, I learned how to get to the root cause of issues and was always able to provide a solution or a diagnosis. Often times this required writing software to reproduce a test case, and occasionally going on-site and monitoring user and system behavior.


## **PC Technician** at Drexel University – iSchool

April 2015—February 2018

Maintained desktops, servers, printers, network, AV equipment for faculty and staff. Provided administration of network and system services e.g. Exchange, Blackboard, Lotus Notes, Active Directory, Domain Controllers. Supervised and trained 10 person support team.

## **Achievements**

### **B.S. in Computer Engineering**

 Drexel University – College of Engineering, Pennoni Honors College – 2008

### **AWS Certified Developer – Associate**

 AWS – 2017