

# Justin Howard Bolden Barnowski

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## CONTACT INFORMATION

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## EDUCATION

**University of Michigan**, Ann Arbor, MI **2010 - 2013**  
*B.S.E. Computer Science, Cum Laude*

## SUMMARY

Professional with experience in software development, test automation, system administration and hardening, compliance standards, and team leadership. As an autodidact, I have greatly enjoyed working in a variety of industries including video streaming, ecommerce, genomics, contract life-cycle management, real-estate, and aviation logistics. I excel when difficult problems are put before me, and truly shine within a collaborative work environment.

## EMPLOYMENT

### **EDXMarkets**

*Senior Infrastructure Engineer*

*Chicago, IL*

**2024 - 2024**

Enabled latency based routing for clearinghouse operations. Managed numerous Auth0 tenants globally. Participated in disaster recovery drills. Deployed redundant clearinghouse operations in South East Asia. Interfaced with multiple software and hardware vendors. Participated in large scale cutover of market operations. Assisted with business intelligence data ingestion and visualizations. Handled numerous database migrations. Identified and rectified drift in IAC repositories.

Learned how critical business requirements effect software architecture.

### **Zipline International**

*Site Reliability Engineer*

*Remote - Chicago, IL*

**2022 - 2023**

Brought onto the existing SRE team to augment Kubernetes and AWS expertise. Managed on-call rotations responsible for physical infrastructure at over thirty sites worldwide enabling the delivery of life saving blood and medicine. Remotely managed and initialized multi-OS hardware infrastructure. Deployed monitoring solution on Kubernetes able to see all drones and detect and avoid targets worldwide. Managed privileged in cloud Github Actions based CI/CD system running within EKS. Managed ArgoCD to enable rapid deployments utilizing Helm. Assisted with design of Elasticsearch index structure for external catalogs and inventories.

Learned how to deal with high stress situations and that I have a preference for on-site employment because I prefer face to face communication.

### **Neighborhoods.com**

*DevOps and Enterprise Services Manager*

*Chicago, IL*

**2020 - 2022**

Hired as a backfilled DevOps engineer to maintain and extend existing real-estate data infrastructure. Worked extensively to maintain data lake operations using Kubernetes and Apache Airflow. Deployed machine learning models to make business decisions, and free up human resources. Managed Kubernetes control planes via Terraform, Packer, and Ansible running on ec2. Led war room and root cause analysis sessions through numerous AWS outages. Developed reusable infrastructure as code for deploying Postgres clusters on AWS RDS. Replaced NewRelic with DataDog on Kubernetes clusters for enhanced service tracing and Real User Monitoring. Led cluster operations including Jenkins patching and upgrades. Developed an organization-wide strategy for utilizing Github Actions. Configured and maintained PagerDuty alerts to alert teammates of issues, including silencing/queuing of non-critical alerts during off-hours. Wrote a minimal Golang based network monitoring daemon to detect and mitigate known Linux kernel bugs. Handled employee on boarding and off boarding, via administering Google Workspaces, Keycloak, 1Password, and LDAP. Handled hiring and managing a System Administrator

employee and a contract DevOps employee.

Learned that development can be thought of as a vector consisting of both velocity and direction, and the best time for feedback is the planning stage.

### **DocuSign**

*Linux DevOps Engineer*

*Chicago, IL*

**2019 - 2020**

Primarily responsible for automating patching of all kernel and OS-level packages worldwide on on-prem VMWare virtual and physical Linux infrastructure. Achieved and maintained DocuSign's FedRAMP status, critical for DocuSign's client retention. Built out multiple US-Gov data centers to further enable government based customers to utilize our platform. Improved monitoring to detect any service failure within five seconds, and when possible, automated recovery. Worked with numerous engineers to learn how to rectify various failure modes. Participated in infrastructure on-call rotations. Extensively used Hashicorp tools Vault and Consul. Participated in disaster recovery simulations. Participated in FedRAMP audit interviews for renewal of SpringCM's status.

Learned how to tactfully bring up security incidents and vulnerabilities with subject matter experts, and submitted appropriate security exceptions requiring additional technical context.

### **University of Chicago, Center for Data Intensive Science**

*Lead QA Engineer Genomic Data Commons*

*Chicago, IL*

**2017 - 2019**

Promoted to QA Lead within a year on a petabyte scale Federal contract normalizing decades of cancer genomic data against a modern reference genome. Automated a number of repeated validation tasks in Python. Utilized on-prem infrastructure to automatically test new externally written code. Added security guardrails for safe handling of sensitive tokens. Assisted in rectifying numerous data and functionality defects. Led monthly operational readiness review meetings. Led a team of three FTE and four UChicago interns. Reviewed countless lines of code across multiple disciplines: bio informatics, infrastructure, data migrations, and the application layer. Completed a Linux Foundation Kubernetes Administration course.

Learned how to align personal goals with that of the organization, and gained extensive knowledge of Openstack virtualization and Saltstack configuration.

### **Tophatter Inc**

*Software Engineer*

*Palo Alto, CA*

**2016 - 2017**

Enabled international expansion via multi currency transactions within the Android client. Updated Tophatter's Android app to Google's Material design specifications. Implemented disk caching of upcoming auction images. Built the item loading animation to increase new user retention by 20%. Utilized A/B tests to detect user engagement changes against new UI changes. Studied the demographic breakdown of those changes and made additional revisions adjust to our largest markets.

Learned that gathering data to justify changes and continuously monitoring that data is a recipe for success.

### **Ericsson Mediaroom**

*Software Engineer*

*Santa Clara, CA*

**2014 - 2016**

Built the inversion of control pattern enabling multi-tenant landing service. Centralized the web application calls to enable multi-client DRM video playback. Familiarized myself with web app components, which enabled businesses to change the look of their specific app while maintaining a shared codebase. Ensured customizable security configuration with GitOps principals. Took upon the role of Scrum Master in addition to other duties. Implemented automated tests using a Selenium Web Driver in both C# and javascript.

Learned how to motivate a team, prioritize work, Agile work processes, and address a technical crisis.

**Microsoft Mediaroom***Mountain View, CA**SDET Intern Accepted Full Time Offer after Ericsson Aquisition***2013 - 2013**

During three month internship with the Test Tools and Infrastructure team I adapted email templates to speed up developers diagnosis of failing test cases. Captured raw html and images on a failing test case to assist with error diagnosis and/or test updates via Microsoft Test Manager. Presorted logs of server errors during failed test execution time windows utilizing Team Foundation Server APIs.

Learned how small improvements to developer workflows could make create massive benefits for both developer happiness and the bottom line. The above changes saved Microsoft around \$400,000 per year in developer time.