

# Justin Howard Bolden Barnowski

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## CONTACT INFORMATION

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## EDUCATION

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

**Aug '10 - Dec '13**

## EMPLOYMENT

**Zipline International, LLC**, San Francisco, CA

*Site Reliability Engineer*

**April '22 - Feb '23**

- Designed internal authorization and authentication systems.
- Developed global visualizations of life saving drone delivery system.
- Led hardware level administration of new delivery sites around the world.
- Maintained CI/CD systems.
- Maintained 24/7 On-Call rotations.
- Database administration for end-user action tracking.
- Integrated network redundancy for lower-risk monitoring.

**Neighborhoods.com, LLC**, Chicago, IL

*DevOps and Enterprise Services Manager*

**Oct '21 - March '22**

- Remedied newly uncovered vulnerabilities in underlying open source software.
- Led war room sessions through numerous AWS outages.
- Developed reusable infrastructure as code for deploying Postgres clusters on AWS RDS.
- Led and completed the hiring process for multiple technical positions.
- Maintained internal authorization and authentication systems.
- Assisted in onboarding and offboarding of employees as needed.

*DevOps Engineer*

**Oct '20 - Oct '21**

- Deployed DataDog to Kubernetes clusters for enhanced service tracing and Real User Monitoring.
- Configured PagerDuty alerts to alert teammates of issues, including silencing/queuing of non-critical alerts during off-hours.
- Configured Pod Security Policies to secure containerized environments.
- Deployed Machine Learning models to benefit the business' bottom line.
- Utilized Packer and Ansible to update nodes running Kubernetes control plane components.
- Wrote a minimal Golang based network monitoring daemon to detect and mitigate known Linux kernel bugs.
- Extended existing Helm charts to ease containerized deployments.
- Developed an organizational strategy for utilizing Github Actions.
- Updated and secured legacy CI systems running on Jenkins.

**DocuSign**, Chicago, IL

*Linux DevOps Engineer*

**April '19 - Oct '20**

- Automated patching of Linux systems across multiple data centers.
- Augmented existing tools for the benefit of operators and developers.
- Uncovered and rectified numerous logic, configuration, and data flaws.
- Handled patching both physical and virtual infrastructure, containing data systems.

- Participated in FedRAMP audit interviews for renewal of SpringCM's status.
- Tools utilized: SaltStack, Gitlab, VMWare, Hashicorp's Consul and Vault.

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

### *Lead QA Engineer Genomic Data Commons*

**June '18 - March '19**

1. Led operational readiness review meetings (a Go No-Go, decision meeting) with multiple stakeholders per release. The most common stakeholders were the Ontario Institute of Cancer Research (OICR) and National Institute of Health (NIH). Found and presented existing system and data defects to advise stakeholders on the best course of action.
2. Led a team of two FTE SDETs and four student interns validating and automating validation of new features and regressions. Took on mentor status with a few students, advising them on how to best achieve their goals. Interviewed numerous DevOps and SDET candidates. Reviewed tens of thousands lines of code across multiple disciplines.
3. Assisted with design and architecture development. Including versioning of files at the Petabyte scale, segmenting data between users, and quarterly meetings at NIH headquarters to discuss future infrastructure improvements and workflow designs.
4. Utilized the python library PyPOM (Page Object Model) to greatly reduce copy and pasted test code, and increase the maintainability of the testing infrastructure. This library was instrumental in giving all testers a consistent way to solve timing problems in test code.

### *Software Engineer in Test Genomic Data Commons*

**June '17 - June '18**

1. Made auto\_qa repository into a functional service. Auto\_qa was deployed as service within a cluster to validate that particular cluster. We are able to run chrome headlessly both locally and on an auto\_qa service. Additionally, these tests were able to be scheduled at regular intervals. Previously this was a manual process to run auto\_qa locally while connected to a VPN to validate a given environment. Gained the ability to conditionally execute tests which require authorization tokens. Finally, I developed over 150 tests for auto\_qa for a total of 239 tests.
2. Worked within the gdcapi for both "unit" and end to end tests. Refactored the gdcapi unit tests to to maintain consistent code coverage with reduced execution time (on TravisCI from 30 min to 8 min). Allowed developers to move faster with the confidence that their changes did not have unintended consequences. Automated (12/20) of the API regression tests by translating curl calls to simple python tests utilizing the requests library. These tests ran daily, and freed up one manual tester for half a day per release cycle. Identified pain points within the gdcapi around BAM slicing requests producing unnecessary crosstalk through consul to other gdcapi machines.

## **Tophatter Inc, Palo Alto, CA**

### *Developer*

**June '16 - Feb '18**

- Upgraded Android application's user interface to Google's Material Design specifications.
- Orchestrated A/B tests to determine optimal user experience and fulfillment of Tophatter's objectives.
- Learned Ruby to fix server-side bugs while also developing new features on the Android client.
- Extended the Android application internationally, specifically enabling multi-currency bidding.
- Libraries/Tools used while at Tophatter: databinding, crashlytics, eventBus, picasso, PubNub, FB and Google signup, and braintree payments.

## **Ericsson Inc, Santa Clara, CA**

### *Developer*

**June '15 - June '16**

- Maintained and enhanced the web app portion of a multi-platform video streaming application (Similar to AT&T U-Verse or Comcast Xfinity).
- Augmented landing service, and multi-operator customization framework. Including enabling configurable Content-Security-Policy headers to better secure end users' browser sessions.

*Tester* **March ‘14 - June ‘15**  
 • Implemented automated tests using a selenium web driver in both C# and javascript.  
 • Scrum Master for multiple teams.

**Microsoft Inc**, Mountain View, CA

*SDET Intern* **May ‘13 - July ‘13**  
 • During a twelve week internship collaborated with the Test Tools and Infrastructure team to revamp failing test case triage process. Worked extensively with Team Foundation Server APIs.

**Garmin Inc**, Novi, MI

*SDET Intern* **April ‘12 - Aug ‘12**  
 • Modernized the semi-truck instrument cluster, radio, and navigation tools. Worked extensively with the J1939 CAN networks of the vehicle. Including mimicking a CAN network using EEPod’s MyCanic.

PROFESSIONAL **Black Hat**, Las Vegas, NV  
 EXPERIENCE

*Student/Participant* **Aug ‘14-‘15**  
 • Android Application Hacking  
 • Uses and Misuses of Cryptography  
 • Advanced Wi-Fi Penetration Testing  
 • 0x7DF Mobile Application Bootcamp

VIRTUAL

**Android Developement**

Tophatter  
 Ericsson  
 Trend Phrase  
 Stock Stalkers  
 Friend Finder Yahoo’s Hack-U competition

**Android Java**  
**Multi-Client Shell Interface**  
**UI Class**  
**Mobile U.I. Senior Project**  
**Fall ‘10**

REAL

Running  
 Chicago Half Marathon  
 Chicago Marathon, *The Team to End AIDS*

**Sep 24th, ‘17 in 2:29:17**  
**Oct 9th, ‘11 in 5:35:42**

BUZZ WORDS

Languages  
 • Bash  
 • C++  
 • Python  
 • YAML  
 • HCL  
 • Java  
 • Golang  
 • PHP  
 • PowerShell  
 • Typescript  
 • Web Developement  
 • R  
 • Erlang

• Kotlin  
 • C#  
 • Ruby

Tools+Envs  
 • Terraform  
 • Ansible  
 • Packer  
 • Consul  
 • Vault  
 • Systemd  
 • LDAP  
 • Keycloak  
 • Docker  
 • Kubernetes  
 • Helm  
 • Tilt  
 • Earthly

- DataDog
- Elasticsearch
- Postgres
- nginx
- PagerDuty

- AWS
- OpenStack

- People Skills
- Agile Development
  - Scrum Master
  - Manager
  - Administrator