

# Morgan Bauer

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## Experience

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Morgan is an Open Source Software (OSS) Engineer for IBM working on Kubernetes. Morgan has extensive experience in the creation of open source software, containerized software development and complex system architecture. Morgan also enjoys working with cross-functional teams, and presenting at conferences and meetups.

**Specialties:** Containers, Kubernetes, Cloud Computing, Open Source Software Development, Developer Advocacy

### IBM

**San Jose, CA**

#### *Open Source Maintainer*

*July 2015 – current*

##### Kubernetes - SIG-Node

- Formed SIG-Node-CI group to raise quality of existing end-to-end tests
- Analyzing and cleaning up existing sig-node tests to increase quality
- Triaging and fix sig-node testing failures to increase velocity
- Deprecating and removing failing and superseded testing suites to remove duplication and unnecessary work
- Increase visibility of critical test groups by centralizing to a single top-level dashboard

##### Hyperledger Fabric

- Maintained EVM chaincode for fabric by shepharding new committers through contribution process
- Implemented ethereum json-rpc 2.0 endpoints for Remix IDE to attach and deploy EVM smart contracts
- Mentored LinuxFoundation Intern to create WebAssembly Chaincode for Fabric
- Improved code quality of Gossip Protocol by removing race-conditions to re-enable disabled integration testing
- Increased Fabric unit testing speed by targeting slowest tests
- Implemented Kubernetes and Docker backends for Blockhead Ethereum Service Broker and port from ruby to go

##### Kubernetes - SIG-Service-Catalog

- Maintainer and founding community member of Service-Catalog an implementation of the OpenServiceBroker API (OSBAPI)
- Multi-company collaboration to adopt CloudFoundry service concept among various cloud providers
- Implemented OSBAPI to expose thousands of existing IBM CloudFoundry services to Kubernetes
- Created CI pipeline in Travis and transition entire pipeline to CNCF infrastructure driven by Prow
- Implemented aggregated APIServer for Kubernetes native object behavior
- Ensured multi-architecture compatibility by communicating with stakeholders of PowerPC and S390X

##### Maintainer of Docker/Moby Engine Core

- Maintainer of Docker ClassicSwarm (Docker-native cluster management)
- Decoupled the server side API from the engine leading to separate client and server binaries
- Triaged community issues by performing fixes and writing documentation
- Increased code quality by performing corrective changes and enabling static analysis

##### Developer Advocate for Open Source

Ongoing

##### Design & Execute Education on Cloud Native Technologies

- Customizing content for internal and external audiences of both technical and nontechnical nature
- Demonstrate value of containerization to improve application development and deployment
- Encourage contributions back to upstream projects
- Grow IBM Open Source committer base by 300 through mentorship and education on Applied use of Git with GitHub
- Decreased new contributor fatigue to Kubernetes communities with increased documentation on node-e2e-test and videos on YouTube

### Lenovo

**Rochester, MN**

#### *Software Engineer*

*October 2014 – May 2015*

##### Manager of Managers (Lenovo XClarity Cluster Management)

- Administered secure source code repository and auditing with git, ssh, & gpg
- Build automation with maven, jenkins, & guestfish for an end to end pipeline from source code to deployable Virtual Machines

### IBM

**Rochester, MN**

#### *Software Engineer*

*July 2012 – September 2014*

##### Manager of Managers (Lenovo XClarity Cluster Management)

- Project bring-up from first principles using maven, artifactory, jenkins
- RESTful API design and documentation with Restlet
- Componentized program with OSGi bundles and services
- Source control administration and education with RTC & git
- JUnit, EasyMock, Sonar for code quality at > 80% line and branch coverage

##### VMControl

- Drove unit testing among the team, and increased coverage from 0% to 26% on 200kloc
- Software Testing of Legacy Systems with JUnit, EasyMock, & PowerMock
- Java, Maven, SVN, & Python

## Education

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**University of Florida**

*Masters of Engineering in Computer Engineering*

**Gainesville, FL**

*2010 – 2012*

**University of Florida**

*Bachelors of Science in Computer Engineering, Minor in Business Administration*

**Gainesville, FL**

*2006 – 2010*

## Conference Talks

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**Kubecon EU 2020:** A Journey Through Kubernetes Admission Controller Taxonomy

**Hyperledger Global Forum 2020:** Hyperledger Fabric 101 Workshop

**TruffleCon 2019 Keynote:** Truffle Support For Hyperledger Fabric

**OpenSourceSummit Japan 2019:** Hyperledger Fabric 101: Permissioned Blockchain Platforms

**OpenSourceSummit China 2019:** Creating your First Smart Contract on Hyperledger Fabric

**ApacheCon NA 2018:** Comparisons of Cloud Native Communities

**Kubecon EU 2018:** Building a Fault-Tolerant Resource Controller on Kubernetes

**CloudFoundry Summit 2018:** Open Service Brokers for the CF Container Runtime

**CloudFoundry Summit 2018 Hackathon:** Project Blockhead - Winning Project

**CloudFoundry Summit EU 2017:** Getting a Handle on Your Microservices: Istio and the Open Source Broker API

## Interests

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Amateur Radio - General Class License KN6AQX

Photography - Travel Snapshots, Nikon D500 DSLR

Rust Programming Language