

Morgan Bauer

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Experience

Morgan is a Advisory Software 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.

Specializing in: Containers, Kubernetes, Cloud Computing, Open Source Software Development, golang

IBM

San Jose, CA

Open Source Contributor

July 2015 – current

Kubernetes - SIG-Node Contributor

- Form SignNode-CI group to raise quality of existing end-to-end tests
- Analyzing and cleaning up existing sig-node tests to increase quality
- Triage and fix sig-node testing failures to increase velocity
- Deprecate and remove failing and superseded testing suites to remove duplication and unnecessary work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
- Decreased new contributor fatigue with increased documentation and recorded demonstrations on YouTube

Hyperledger Fabric

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

Kubernetes

- Committer and community member
- Founding member of service-catalog an implementation of the OpenServiceBroker API
 - Create CI pipeline in Travis and transition entire pipeline to CNCF infrastructure driven by Prow
 - Implement aggregated APIServer for Kubernetes native object behavior
 - Ensure multi-architecture compatibility by communicating with stakeholders of PowerPC and S390X

Docker - Maintainer of core engine and original swarm

- Decoupled the server side API from the engine leading to separate client and server binaries
- Triage community issues by performing fixes and writing documentation
- Increase code quality by performing corrective changes and enabling static analysis

Developer Advocate for Open Source

- Design & Execute Education on Cloud Native Technologies
 - Customizing content for internal and external audiences of both technical and nontechnical nature
 - In-depth workshops on how to use
 - 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

Lenovo

Rochester, MN

Software Engineer

October 2014 – May 2015

Manager of Managers

- Administer secure source code repository and auditing with git, ssh, gpg
- Build automation with maven, jenkins, guestfish

IBM

Rochester, MN

Software Engineer

July 2012 – September 2014

Manager of Managers

- 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

University of Florida
Masters of Engineering

Gainesville, FL
2010 – 2012

University of Florida
Computer Engineering, Minor in Business Administration

Gainesville, FL
2006 – 2010

Conference Talks

Kubecon EU 2020: A Journey Through Kubernetes Admission Controller Taxonomy

Hyperledger Global Forum 2020: Hyperledger Fabric 101 Workshop

OpenSourceSummit Japan 2019: <https://ossalsjp19.sched.com/event/OVt3>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