Steven B. Cherry
DevOps / CI/CD Automation / Developer
Detroit, MI
steven.b.cherry@gmail.com

Objectives

To prototype and implement development solutions utilizing modern practices such as DevOps, configuration as code, containerization, and GitFlow. To accelerate development and mentor developers in Agile and popular stacks.

To lead the implementation of emerging technologies and cultivate environments in which robust, scalable, and automated enterprise-class information systems can be created. To bring to bear twenty-five years of experience in solving information technology and development problems.

Key Skills
- ✓ Development acceleration through CI/CD automation for node.js, python, angular, dotnet, and cloud-native services
- ✓ Serverless implementation of APIs, messaging, and ETL workloads
- ✓ DevOps build, test, deploy, virtualization, and containerization. Kubernetes/GKE, AKS, and Docker
- ✓ Extensive expertise in linux operating systems, command line, and containers.
- ✓ Centralized logging
- ✓ Automation of AWS, Azure, and Google Cloud architecture and applying gitflow and feature branching to development
- ✓ Pipeline automation software: GitLab, github, Google Cloud Build, Amazon Code Build/Deploy, Circle-CI, VSTS, bamboo
- ✓ Alerting and monitoring implementation for application and stack. Support escalation.
- ✓ Build automation, deployment, gitflow, release, mentoring, and team training.
- ✓ Full Stack systems development and architecture. Object-oriented javascript, Angular, Node, Python, React, Vue
- ✓ Development process: Agile, Sprint grooming, Continuous Integration, GitFlow
- ✓ Docker for automated unit testing and integration.
- ✓ Application scaffolding and build systems: Nodejs, Grunt, Gulp, Yeoman, Composer, node-cli, angular-cli.
- ✓ Migrations. Migrating applications, databases, and application containers to the cloud and from cloud-to-cloud
- ✓ Evaluation and implementation of technologies, development software and libraries to solve enterprise problems. Emphasis on fast iterations, configuration as code, and fail fast.

- ✓ API construction: Creating and populating databases. Authoring object-oriented and/or REST APIs in Node, Perl, Python, and PHP. Integrating them into enterprise security.
- ✓ Databases: MySQL, postgreSQL, sqlite, InfluxDB, Redis
- ✓ ETL: Google Cloud Platform ETL and Pentaho configuration and management.
- ✓ Data presentation, generation of charts, graphs, and data visualization for web applications. Employed tools like GD::Graph and D3 javascript libraries.
- ✓ Version control, git branching, merging, and release workflows
- ✓ Operating Systems: Linux: CentOS, RedHat, Arch, Ubuntu, Debian, Mint, and Mac.

Recent Exposure
- ✓ Terraform for Google Cloud Platform
- ✓ Database transfers between AWS and GCP, PostgreSQL and MySQL
- ✓ Cromwell and Basespace, bioinformatics pipelines

Employment History

Sr. DevOps Engineer
Onix Networking, Lakewood, Ohio
2/11/2019 – 8/7/2020

DevOps
- ✓ Google Cloud Platform Secrets Management
- ✓ CI/CD pipeline automation
- ✓ Google GKE (Kubernetes) implementation and deployment
- ✓ Implementation of GitLab in Google GKE using Helm

Solutions
- ✓ Large Database migration from AWS to GCP. PostGreSQL and MySQL
- ✓ Life Sciences ETL in Google Cloud Platform. Long running downloads from Basespace and ETL implementing Cromwell jobs and cloud pub/sub
- ✓ Agile/Scrum sprint planning and task creation with product owner and team

Team Leadership
- ✓ Creation, implement, and instruction of gitflow, branching and release process to development team
- ✓ Sprint planning and task creation with product owner and team

Cloud Architecture
- ✓ Creation and configuration of Google Cloud Platform (GKE) Kubernetes pre-production environments with automated build and deployment
- ✓ Creation of docker image registries to facilitate Kubernetes cluster deployment of python, nodejs, and springboot applications
- ✓ Creation of application containers to run node.js and python containers
- ✓ Strategies for securing passwords and other development credentials using Google Secret Manager

✓ Configuration-as-code and even networking-as-code via terraform

Problem: A Customer managing a TLD, needed to migrate their web services and databases from AWS to GCP. Their GitLab instance, running on a VM in AWS, was misconfigured and could not make use of concurrent build runners and often ran out of disk space mid-build.

Solution: I architected and implemented a new GitLab installation in GKE utilizing the official Helm chart. This configuration included on-demand build runners and an automated SSL certificate issuer for Let's Encrypt. This was the foundation on which I built an automated CI/CD platform, deploying to a multiple-envrionment GKE cluster. I migrated their projects and databases to GCP and coached their development team in GitFlow best practices, using pull requests and short lived feature branches to accelerate development.

Cloud Architect / DevOps Architect
Ryder Logistics, Novi, MI
11/24/2017 – 2/11/2019

DevOps
   ✓ Creation of DevOps practices and transfer to enterprise operations
   ✓ Creation of build and deployment automation to Azure and AWS containers
   ✓ Creation of application alerting and monitoring with Kubernetes, Sensu, and OpsGenie
Team Leadership
   ✓ Creation, implement, and instruction of gitflow, branching and release process to development team
   ✓ Sprint planning and task creation with product owner and team
   ✓ Led bi-weekly hackathons revolving around technologies new to the organization
   ✓ Supported AWS data lake creation from a DevOps perspective. Hive and s3 bucket ingestion automation and error control with Lambda functions.
Cloud Architecture
   ✓ Creation and configuration of AWS Kubernetes and Azure AKS pre-production environments with automated build and deployment
   ✓ Creation of docker image registries to facilitate Kubernetes cluster deployment of node.js and c# applications
   ✓ Creation of Azure application containers to run node.js web applications
   ✓ Strategies for securing passwords and other development credentials

Problem: The organization was developing a cloud-based web application for drivers while simultaneously adopting Agile Scrum methodologies. The development team was accustomed to waterfall methodologies and were inefficiently using git, introducing bugs and had not automated testing. Before each release, development stopped for manual testing by the development team. They were deploying to a single VM running a single docker instance.

Solution: Since the organization was already engaged with Azure, I implemented VSTS (DevOps), and coached the development team in the use of GitFlow, protecting the development branch from buggy merges. Automated headless Chrome, regression, and unit testing freed up huge amounts of time for the developers who could concentrate on creating a loveable product while getting the hang of Agile ceremonies. I implemented the use of off-shore testing to keep development moving. They went from releasing twice a year to twice a week. I coached developers to present their work during demos and spent one-on-one time with each of them, fostering a warm, collaborative environment. I also instituted the Agile "solution huddle" to rapidly get through blocks and any other technical issues. I architected a kubernetes cluster to handle ETL workloads and deployed the app code to Azure application containers, allowing the application to scale serverlessly. The team, which had initially resisted the change to Agile, had solid confidence in it by the time my work was completed.

DevOps / Senior Programmer / Developer / Analyst
North American Bancard, Troy, MI
11/20/2014 – 11/23/2017

DevOps
- ✓ Automation of software deployments in Bamboo and supporting build servers.
- ✓ Administration of AWS and internal virtual machines with Puppet and Ansible.
- ✓ Creation and configuration management of systemctl scripts for nodejs applications
- ✓ Application configuration and automation from puppet to bamboo creating one-click deployments.
- ✓ Alerting and monitoring with sensu and logging to an ELK stack.

Support and analysis for mission critical systems
- ✓ Diagnosis, recommendation, and repair of custom internal software written in PHP, PERL, Javascript, and PostgreSQL.
- ✓ Maintain test environments for internal software suites. Employed Vagrant to quickly spin up virtual servers for development and code fixes, puppet for administration.
- ✓ Pentaho troubleshooting and creation of a development and production environment at AWS.
- ✓ Identification and elimination of bottlenecks in web applications.
- ✓ Modifications to linux legacy scripting, PERL, bash, python. These are typically business processes acting on large files, data, reporting, phone systems, and email.

Senior Programmer / Developer
Custom Business Solutions, Novi, MI
11/20/2013 – 11/2014

Application development for local energy provider
- ✓ Developed internal, high visibility, responsive application in Angular.js and Foundation.

- ✓ Designed specification for the REST api that this application uses to pass JSON payloads. Worked with the back-end team to meet the needs of the application.
- ✓ Continuously improved the application for weekly code updates.
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Senior Programmer / Developer
The Detroit News, Detroit, MI
12/2006 – 10/2013

Application development and systems analysis for large market newspaper. Created development environments and standards. Stack: LAMP and node.js. Automation with bash scripting and cron. Alerting and monitoring.

Programmer / Consultant
Custom Business Solutions, Novi, MI
1/2005 – 12/2006

Consulting project work for medical statistics firm and clinical medical trials. Stack: MS Access, MS Excel.

Programmer / Consultant
Technology Resource Group, Royal Oak, MI
11/2002 – 12/2004

Application development for mail fulfillment company and automotive supplier. Stack: Linux, PERL, JavaScript, Apache, MySQL, and Tk.

Senior Programmer / Web Operations
Hass MS&L, Ann Arbor, MI
10/1998 – 9/2002

Boutique Developer: LAMP stack web applications for automotive manufacturers. Production and pre-production environment operations.

Programmer / Consultant
Enterprise USA Inc., Farmington, MI
9/1996 - 10/1998

Web Application Development for a number of clients. LAMP stack. Linux administration.

Education

Baker College of Flint – CIS/Programming 1995-1997
Grand Valley State University – Communications 1990-1991
Lansing Community College – Prerequisites 1988-1990

Interests

My hobby projects keep me sharp and engaged. In my free time I make photographic prints, frames, collect records, dabble in amateur radio (kd8qzz), play handball, repair vintage diesel cars and transistor electronics, modify microphones, and home automation.

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