**Steven B. Cherry**

Cloud Architect / DevOps / Developer

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**Objectives**

To prototype and implement cloud solutions utilizing modern development practices such as DevOps, configuration as code, containerization, and gitflow. To accelerate development and mentor developers.

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

**Key Skills**

* Development acceleration through CI/CD automation
* DevOps build, deploy, virtualization, and containerization.
* Extensive expertise in linux consulting background: development, build automation, deployment, architecture, gitflow, release, mentoring, and team training.
* Full Stack systems development and architecture. Object-oriented javascript, Angular.js, Node.js, Python, PHP, PERL. Responsive layout libraries like Bootstrap and Foundation. React, Ember.js, etc.
* Development process: Agile, Continuous Integration, Test-driven development, Docker for automated unit testing and integration.
* Application scaffolding and build systems: Nodejs, Grunt, Gulp, Yeoman, Composer.
* Migrations. Migrating applications to off-site servers, databases, and application containers.
* Evaluation and implementation of languages, 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 secure object-oriented and/or REST APIs in Node, Perl, Python, C, and PHP.
* Databases: MySQL, postgreSQL, sqlite, InfluxDB, DB2, and some Oracle.
* ETL: Pentaho configuration and management.
* Data presentation, generation of charts, graphs, and data visualization for web projects. Employed tools like GD::Graph and D3 javascript libraries.
* System development environments and version control systems. GIT, SVN, CVS, Mercurial, Eclipse, PHP Storm, Coda, ClearCase, gitlab.
* Operating Systems: Linux: CentOS, RedHat, Arch, Ubuntu, Debian, Mint. Windows, and Mac.

**Recent Exposure**

* Azure Cloud Platform
* Terraform
* AKS
* VSTS
* TICK Stack

**Employment History**

Cloud Architect / DevOps Architect

Ryder Logistics, Novi, MI

11/24/2016 – present

DevOps

* Creation of DevOps practices and transfer to enterprise operations
* Creation of build and deployment automation to Azure containers
* Creation of application alerting and monitoring with 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

Cloud Architecture

* Creation and configuration of Azure AKS pre-production environments with automated build and deployment
* Creation of docker image registries to facilitate AKS cluster deployment of node.js and c# applications
* Creation of Azure application containers to run node.js web applications

DevOps / Senior Programmer / Developer / Analyst

North American Bancard, Troy, MI

11/20/2014 – 11/23/2016

DevOps

* Creation, configuration, and management of multiple software deployments in Bamboo
* Creation and configuration management of systemctl scripts for nodejs applications

Support and analysis for mission critical systems

* Diagnosis, recommendation, and repair of custom internal software written in PHP, PERL, Javascript, and PostgreSQL.
* Puppet development for virtual server creation and management.
* 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.
* 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, Bootstrap, 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.
* Analysis and consulting on a legacy PHP application that services an automatic notification system to interact with customers.

The Detroit News, Detroit, MI

12/2006 – 10/2013

Application development and systems analysis for large market newspaper.

* Internal application development. Built development environment and continuously improved methods. Created accessible and powerful internal web applications which orchestrated the movement of electronic media between multiple monolithic systems. I used predominantly PERL, PHP, jQuery/JSON, Prototype, and angular.js.
* Systems integration. Responsible for continuous operation of mission-critical systems and middleware necessary for publishing the newspaper and the company's website. This sometimes involved remote on-call troubleshooting through the VPN.
* Public-facing web development and API creation. Built a custom photo gallery suite by which newspaper staff could assemble, order, embargo, and modify online photo galleries. Created an API in PHP, which allowed staff to make requests and get complete, mustache-styled code in return. For presentation I implemented galleria.js and extended the library to interact with our website statistics code.
* Live election coverage management and development. Responsible for election night metrics and vote tallies. Managed a large team of data-entry staff working on an internal legacy PHP application through the night. Improved software performance and usability for personnel. Authored scripts to send data to the web and the print publication minutes before publishing deadlines. Adjusted these scripts for integration with the evolving publishing systems.
* Photo processing and website captures. Automated bash/imagemagick scripts to resize, modify metadata, store, and sort thousands of archival photos. Automated thumbnailing and sharpening for several parts of the public-facing product. Created daily captures with wkhtmltopdf and phantom.js.
* Web newsletter creation. Utilizing angular.js, mustache, and PHP to develop a simple internal application, I facilitated the creation of newsletters for customers. The application exports a json file to the server. It then uses a mustache template which designers can access in order to modify the design. I finished the working code in four days as an evaluation of modern libraries like angular.js.

Programmer / Consultant

Custom Business Solutions, Novi, MI

1/2005 – 12/2006

Consulting project work for medical statistics firm and clinical medical trials.

* Data normalization and administrative applications for medical statistics firm. Client needed large amounts of data normalized and methods for collecting cleaner data. Built scripted xls spreadsheets which guided users on more complete data population. Spreadsheets automatically synchronized with database tables. HIPAA certification was required.
* Physician's staff performing clinical trials were having difficulty with their databases. Staff had created a number of MS Access databases to keep track of patient data. The databases were buggy and had to be rescued. The data needed to be carefully normalized to preserve more than two years worth of work.

Programmer / Consultant

Technology Resource Group, Royal Oak, MI

11/2002 – 12/2004

Application development for mail fulfillment company and automotive supplier:

* Development for a web-based, multi-site CAD data vaulting and collaboration product.. Utilized PERL CGI, AJAX, Javascript and DBI in application development. I implemented auto-completing drop-down lists using prototype and ajax calls for asynchronous javascript and db access using MySQL. Cross-platform support was key to the success of this project.
* PERL/Tk- MySQL client-server application development. Development for a custom enterprise system to coordinate the production, printing, and mailing of thousands of pieces of mail per month. This replaced a legacy terminal-based system.
* MySQL administration and performance tuning. Our client was running databases with millions of records. Fine tuning of MySQL's configuration, memory, swap, and indexes improved server performance dramatically.
* PERL PDF report generation. Our PERL/Tk application needed to produce reports in HTML and PDF formats. Built and tested both using PERL modules CGI and PDF respectively.
* User training and bug tracking. Identified a need to track bugs from our users and set up an implementation of Bugzilla with about 20 accounts. I prepared training materials for our training sessions.
* Web applications using SOAP. Because of security, in some instances we were limited to passing information only on port 80. I employed Apache-SOAP to transfer data between client and server. PERL SOAP libraries make parsing the XML a snap.
* PERL CGI / CLASSDBI and Module Development. When developing PERL libraries for end-to-end object oriented libraries.

Senior Programmer / Web Operations

Hass MS&L, Ann Arbor, MI

10/1998 – 9/2002

Developer: PHP/MySQL/Javascript/HTML Web applications for automotive manufacturers:

* Zip code dealer locater. MySQL back end. Public-facing front-end was a web interface designed using Dreamweaver and PHP for CGI and database interaction. System called for ongoing maintenance of dealer database and periodic updates of zip code information. Hosted on a Linux/Apache server.
* PDF contract generator for Teen Driving Program. Utilized PHP and a PDF library to create on-the-fly PDF files. Parent/Teen contracts were personalized to users of the website depending on which selections they chose. Public-facing website was hosted on a LAMP stack.
* EPA toxic release inventory database. An auto manufacturer needed to communicate their environmental impact data for each of their facilities to the public. We utilized a PHP and HTML front-end to present environmental data to the public. The HTML was constructed to allow designers to make changes in Dreamweaver. I built a MySQL database to warehouse the data.
* Web publisher for mobile racing journalists. Journalists covering auto racing for an automotive manufacturer needed a way to submit stories remotely. I built both a public-facing website, and a password-protected area for the journalists to submit stories. The system allowed journalists to update a specific part of the website securely and remotely. Project employed PERL, PHP, javascript, HTML, and MySQL.
* Web interface for industrial weather station data. An auto manufacturer needed to allow people living near one of their facilities to report odor releases when they happened. Our client had an on-site weather station which we were able to integrate into the system. When a member of the public reported an odor on the website, environmental engineers received a copy of the report with data from the weather station attached. This allowed engineers to respond quickly and effectively to complaints. Employed PHP, javascript, HTML, MySQL, and Kermit to interface the station via telephone line.
* Public relations questionnaires and reporting. A major product manufacturer needed a way to conduct product questionnaires and report the results on the Internet. Users would be given a URL by email where they would fill out a series of forms. Reporting was created with a PHP charting add-on. Employed PERL, PHP, javascript, HTML, and MySQL.

Web development environment design and management:

* Designed and implemented a two-stage web development environment maximizing security and web site integrity. This environment supported both Microsoft and Apple workstations, allowing customers and developers a secure area in which to review and collaborate. Sites were designed, built, tested, then promoted to production servers through a web interface.
* Implementation and administration of web server statistics. Clients often required statistics for website visits, browser types, and content access. I provided this by processing Apache access logs with Webalizer log analyzer with twice-daily cron jobs. I made each statistics page available to clients in a password-protected area.
* Implemented ticket system in order to track requests. As Hass MS&L grew, we needed a better way to track and process requests for changes and new websites. I set up and employed an open-source ticket system to track and prioritize in-house requests for work.
* Provided secure database access for content producers. Clients and in-house staff required methods for creating and modifying content quickly and easily. I built a staging area in which customers could view and approve content before going live.
* Created shell scripts for system administration tasks. Using bash shell, I created scripts to rsync directories between servers, to make backups to other servers, to update databases and process images in batch.
* E-mail and critical system monitoring.
* DNS and domain name management. I was responsible for maintaining DNS (MX and SOA) records for 20-30 customer websites.
* Version control with CVS. As Hass MS&L grew we needed a way for developers to keep track of code and versions. I implemented a CVS server to act as a central repository for all websites, graphics, code, and databases.
* Responsible for detecting intrusion and countermeasures. I set up and administered PortSentry, LogWatch, and HostSentry on our production and development web servers. I made sure our software was patched and up-to-date. I would periodically run root kit detection scripts on servers to check for unauthorized access. We moved from simple FTP access to SSH file transfers for added security. It was my responsibility to keep malware and hackers out of our office network and web servers.

Programmer / Consultant

Enterprise USA Inc., Farmington, MI

9/1996 - 10/1998

Web Application Development for a number of clients:

* Web interface for medical statistics data. A medical statistics firm designed an intranet product to present medical insurance data to their customers. The customer's art department provided the HTML. It was my task to develop the product based on the static HTML they provided. The product was written in PERL::CGI and pulls data from multiple database backends. I was able to use GD libraries to produce charts and graphs on the fly.
* Credit card transaction processing. We created a PERL wrapper for their C API. This allowed us to integrate credit card processing into websites with SSL and a couple of PERL CGI calls.
* Shipping charge calculation. Using UPS web services for shipping calculation, I integrated shipping cost calculations based on the estimated weight of the products purchased.
* Open source shopping cart / catalog. Using open source catalog systems like Interchange (then MiniVend), integrated product catalogs into existing websites to allow their customers to shop online.

Consulting and Administration:

* Linux. Red Hat, Fedora, Ubuntu, Suse, and FreeBSD. OS installation and software updates with RPM, YUM, and APT. System Security.
* Web servers. Fedora / Redhat Linux, Apache, MySQL, PHP, PERL::CGI. Configuration, tuning, and maintenance.
* Firewalls / Security. Implemented Linux servers as Firewalls. Built a few traditional firewalls with multiple NIC cards. I used IPSEC and Ipchains to secure the T1 connection. I was responsible for interacting with T1 and telecom providers' account representatives.
* LDAP. Built and rolled out a lightweight slapd implementation for 10-20 users. Little maintenance was required. Some applications accessed LDAP database for user authentication.
* Serial device communication. Implemented PERL libraries for communicating with devices such as gps and data loggers on serial ports.

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**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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