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Patrick Brewer

Summary

Innovative Senior DevOps Engineer who understands the melding of operations and development to quickly deliver code to customers. Twenty plus years of experience as a software developer and systems engineer/admin. Currently focused on DevOps/architecture in Amazon Web Services (AWS). Passionate about moving projects into AWS or optimizing existing projects to improve efficiency with better reliability. Broad experience and skills allows problem solving from a unique perspective.

Skills

Cloud: AWS, Cloud Formation, Ansible, RackSpace; Automation: Puppet, Ansible
Languages: Python, shell/bash, perl, Java, Groovy, PHP, Objective-C, C/C++, Ruby, JavaScript/TypeScript
Amazon AWS: EC2, VPC, Lambda, Auto-scaling, Auto-recovery, EBS, S3, Glacier, ELB, Route 53, Elasticache, RDS, CloudFormation, CloudWatch, SES, CloudTrail, SNS, AMI, ECS, Fargate, CDK, Cloudfront
Other: iOS, svn/subversion, git, Xcode, SQL, multi-threading, mySQL, Oracle, XML, SSL, JSON, F5, WebSphere, Apache, Nginx, Tomcat, JBoss, gcc/gdb, html, TCP/IP, DNS, Zabbix, Dynatrace, Datadog

CLOUD | DEVOPS | SYSTEMS ENGINEERING | SOFTWARE DEVELOPMENT | WEB DEVELOPMENT | LEADERSHIP | ENTREPRENEURIAL THINKING

Work Experience

March 2022 - Present	**iFIT**	Logan, UT

Senior DevOps Engineer (100% Remote)
- Created 2 pools of self-hosted GitHub runners in AWS supporting x86 & ARM development.
- Used multiple approaches to optimize AWS cost.
- Completed AWS's "Advanced Architecting on AWS" training class.
- Migrated MongoDB collections into new micro-services MongoDB instance.
- Defined Datadog logging strategy to balance usefulness with cost.

May 2018 - March 2022	**Cengage**	Raleigh, NC

Senior DevOps Engineer (Remote after March 2020)
- Sent error/monitoring events from AWS CloudWatch through SNS and Lambda to Slack channel.
- Set up auto-scaling AWS Elastic Container Service cluster to run centralized Jenkins CI/CD jobs.
- Setup standard Dynatrace monitoring and dashboards for customer facing applications.
- Jenkins migrations for consolidation of Jenkins servers, and further automated sets of automated test jobs.
- Script to clean up orphaned offline Jenkins agents.
- Used spot instances to reduce costs of docker cluster by 50 to 75%.
- Used Ansible as part of CD jobs, to build AMIs with and without Packer, to manage system configurations.
- Set up and managed Mac Minis in data center as build servers for mobile team.

Jul. 2014 – May 2018	**LexisNexis**	Raleigh, NC

Senior Systems Engineer
- DevOps team's cloud expert attended AWS re:Invent and led team's efforts in the cloud. Evangelized cloud use in the company.
- Splunk Admin for Splunk cluster that ingested 350GB+/day of logs and data from 2000+ sources.
- Developed automation using Ansible and CloudFormation for multiple AWS environments.
- Developed Python Boto scripts to take snapshots and manage snapshot lifecycle management, later rewrote as Lambda functions. Setting up consistent replicable environments using best practices for cloud and security.
- Developed automation to wrap around problematic tool managing access to Linux servers through active directory, reducing tickets to DevOps team. Developed automation to shut off Splunk in QA environments with runaway logging, eliminating licensing issues and manual intervention.
- Automated DevOps processes for hybrid-cloud projects with both AWS and traditional datacenter hosted systems.

Jan. 2014 – Jul. 2014	**First Citizens Bank**	Raleigh, NC

Linux Systems Engineer
- Systems Engineer provided support for 300+ Linux servers and VMs.
- Developed automation scripts in puppet, shell, and Ruby to automate management of Linux servers.

Apr. 2012 – Sep. 2013   **Bank of America**   Raleigh, NC

Storage Automation Developer (100% Remote)

- Enterprise SAN and NAS Storage Automation Development Developer for Storage Automation project that managed SAN and NAS storage allocations, deallocations, and disaster recovery for entire organization.
- Migrated SAN Automation system from Sun OS to Linux VM's, and from proprietary perl to open source perl. Developed "poor man's" RESTful API for work flow system managing fiber channel cabling requests worldwide.
- Automated management of Zoning on Cisco Fabric Manager

Mar. 2010 – Mar. 2012   **Railinc**   Cary, NC

Team Lead – Web Front End Services

- Led two-person team managing F5 load balancers, SSO service, web portal, content management, and reverse proxies. Tools used included Alfresco, Liferay, IBM's IHS, Apache https, Entrust GetAccess, CA Siteminder, Tomcat/TCserver, SiteScope, VMware, Redhat Enterprise Linux, subversion, CA Wiley and F5 LTM.
- Developed Java, shell, and Perl scripts for maintenance and automation of above responsibilities.

Apr. 2009 – Mar. 2014   **EnInIn**   Morrisville, NC

Founder

- Developed cloud back end code and iOS app for Foodtruckie/Taco Loco. Developed 100% of the backend systems in the cloud and wrote 70% of the iOS code. Developed 1st and 2nd generation versions of SpeakinCalc.
- Provided consultations on storage automation APIs and software development to talk to vendor provided APIs.

Aug. 2002 – May 2009   **GlaxoSmithKline**   RTP, NC

Senior Internet Technology Consultant

- Served as SME and defined corporate standards for use of Sun One (iPlanet) and Apache/Tomcat. Developed installation and management tools using Perl, shell, SQL, HTML, XML, and JSP.
- Designed and implemented Unix/Java/JSP and NetApp storage systems for intranet shared hosting project.
- Provided expert optimization of applications to enhance performance and stability.
- Managed DNS entries, defined firewall rules, and load balancer configurations. Technologies used: Tomcat, JBoss, WebSphere, WebSphere MQ, JMS, Solaris, Linux, Hibernate, EJBs, Spring, Struts, J2EE, host intrusion protection, single-sign-on and reverse proxies. Modified open source software written in C and C++ for internal use.
- Wrote several levels of system documentation meeting FDA requirements for the pharmaceutical industry.

Nov. 1998 – Aug 2002   **MRM, Inc.**   RTP, NC

Vice-President of Information Technology

- Primary architect of the company's business plan used in the search for VC funding. System architect and Project manager for mission critical real-time transactional inventory system, including multi-threaded applet front-end, technologies including Java, JDBC, Jserve/Tomcat, Oracle, SQL, XML, Apache, Perl, and C/C++.
- Built the IT department from first employee up, making all staffing decisions; prioritized all departmental projects; determined customer needs and developed solutions; interfaced with corporate customers; managed budget, and out-sourcing vendors. Filled the following roles: Oracle DBA; System Administrator for a network consisting of Linux, Solaris, Apple, and Windows systems, source code management using cvs.
- Created sales presentations on the company's IT infrastructure and presented them to top customers.

Jun. 1996 – Nov. 1998   **Avant!**   RTP, NC

Software Engineer

- Designed and implemented algorithm to find electrical shorts in integrated circuit designs. Created new algorithm for design rule check that was 142 times faster than the previous algorithm, and provided more accurate results.
- Developed specification for small file caching to improve system performance in benchmarks against competitors. Researched file system performance of versions of Unix and Linux.
- Created large file I/O optimization specific to Solaris that resulted in a 10% improvement in application run times.
- Optimized libraries including adaptive hash tables, parallel file compression, and pooled memory management.

Certifications

- AWS Certified Solutions Architect - Associate

Education

Master of Science, Computer Science	North Carolina State University	Raleigh, NC
Bachelor of Science, Computer Science	North Carolina State University	Raleigh, NC