



Ken Erwin

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Proven, resourceful engineering visionary with extensive experience architecting, developing, and delivering solutions at every level of the technology stack. Founder of the DevOps Library, with experience leading projects and mentoring. Known for working across team boundaries to deliver business value. Personable team player, with a passion for excelling in constantly evolving environments.

Specialties:

<ul style="list-style-type: none">• Technical Strategy and Roadmap• Hiring, Mentoring, Growth, Retention of Talent• Private & Public Cloud Architecture• DevOps Culture & Tools• Configuration Management• Continuous Integration and Delivery• Highly-Available Infrastructure	<ul style="list-style-type: none">• Agile Methodologies• Large & Small Enterprise Architecture• Immutable Infrastructure• Kubernetes• IaaS, PaaS• Open Source Tools• Performance Monitoring
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Relevant Experience

Chief Architect of Infrastructure @ KAR Global September 2018 - Present

Driving innovation and modernization efforts across all KAR Global infrastructure. Responsible for the design and implementation of overall tech strategy and roadmap for multiple lines of business (hosted both on-prem and public cloud). Actively fostering a shift from legacy IT practices to a devops culture with cross-functional SREs.

Accomplishments:

- Stabilized a freshly acquired line of business that had not successfully released code in over a year, with very high turnover. Over a four month period, I served as a combined remote manager, scrum master, product owner, and IC for the SRE teams. We were able to not only release new code successfully, but drop deployment cycles down to a weekly cadence. I mentored the team, teaching them how to follow Agile practices, and how to use proper tooling to manage the infrastructure, resulting in improved morale and reduced turnover.
- Migrated legacy EAP JBOSS applications from VMware to Kubernetes, with full CI/CD, utilizing Azure DevOps pipelines to deploy Helm charts to K8s.
- Built highly available on-prem Kubernetes (OpenShift) clusters for latency sensitive workloads, and public cloud (EKS) clusters for scalability.
- Created automated cluster build scripts, we were able to successfully migrate production workloads to a new cluster with zero downtime. (Utilizing Velero for the actual backup/restore, and flipping VIPs after passing liveness checks).
- Reduced overall annual expenses substantially by rightsizing our cloud footprint, and standardizing on tools.

KubernetesAzure DevOpsOpenShiftAWSAgile Transformation
SplunkHybrid CloudTerraformAnsible

Senior Manager of Automation @ Salesforce Dec 2016 - September 2018

Leading Infrastructure & Development automation efforts across Salesforce, through declarative data, configuration management, and continuous integration.

Accomplishments:

- Built & managed a team of 9 rockstar direct reports, as well as providing tools and guidance for all other infrastructure teams.
- Architected & Implemented Jenkins for all teams to consume (used for automated testing, continuous integration, and declarative data pipelines).
- Automated deployment of physical SQL clusters, deploying over 400 in a few hours. (automated iLO, BIOS configuration, IPs reserved in IPAM, NICs teamed & tagged, WWNs gathered for storage, OS deployed, patched (including firmware), configured via Chef, clustered, LUNs mounted, & SQL installed.)
- Declarative Data - Under my direction, my team created a declarative data REST API. All of the data within is generated automatically, & is automatically validated. This was the first declarative data initiative within Salesforce MC, and has served as an early model for other teams looking to adopt declarative data.

- Standardized Images - Used Packerto automate the creation of a standard set of OS images, with an identical image created for deploying to VMware, Virtualbox, and MAAS (for physical deployments). This has made it possible to quickly iterate and test on the exact same image that's deployed in all 3 scenarios. Our Server 2016 image is now the 4th most popular image for Vagrant on Atlas.
- Automated deployment of application servers utilizing Chef for configuration management & Terraform for provisioning.
- Automated network VIP creation & management of F5 pools.
- Converted run-books of 50 server types to Chef cookbooks.
- Fleet Management reporting (using Splunk & Chef for metrics gathered within a ~30 minute interval across 30,000+ servers).
- Created REST API for declarative data, used to simplify and automate builds across OS, storage, networking, and application teams.
- Chef release pipeline

Chef Jenkins Packer SQL Network Automation
Splunk Declarative Data F5 Load Balancers

Senior Automation Engineer & Python Developer @ Kinney Group Nov 2015 - Dec 2016

- Architected & Implemented Disaster Recovery solution (4000+ VDI VMs) for client (Total recovery time under 8 hours).
- Worked full time as a Python developer for several months on a custom application for a client.
- Developed and Implemented automated testing (Through Jenkins, Bitbucket, PyTest, PyTest-BDD, and CasperJS)
- Managed internal Stash environment, later migrating to Bitbucket.
- Automated Developer environments using Docker, and set up RancherOS PoC.
- Implemented CI Pipelines for various projects.
- Automated VMware server provisioning using Terraform, & PowerCLI.
- Developed Puppet modules for automating application configuration, as well as applying STIGS to harden servers and applications.
- Designed and rebuilt lab in cloud (SoftLayer), managed hybrid VMware Cloud.
- Developed blueprints & automation around VMware vRealize Suite (Orchestrator, vCAC, Ops Manager, custom PowerCLI etc.)
- Implemented basic ChatOps functionality using Hubot & Jenkins.
- Trained team members on various technology topics (including automated testing, Docker, Puppet, and Jenkins).

Senior Automation Engineer @ Nephila Advisors Apr 2015 - Oct 2015

- Created and maintained Puppet environment (Primarily Windows, using R10K & The Foreman).
- Storage Automation (Using PowerShell to interact with 3PAR SSH & REST APIs).
- Jenkins Administrator (Setup and Maintained).
- Octopus Deploy Administrator (Setup and Maintained).
- Atlassian Stack Administrator (JIRA, Confluence)
- Extensive JIRA Configuration, including JEMH, custom workflows, and dashboards.
- VMware Automation (PowerCLI, for ESXi 6.0U1 environment)
- Cisco UCS Automation (PowerShell PowerTools)

Senior DevOps Developer @ Interactive Intelligence May 2014 - Mar 2015

Remote/Onsite consulting for tools & apps owned by small and medium scale businesses. Built & maintained over 15+ projects for happy clients.

- Created and actively maintained the largest production Windows Chef environment nationally (for the time).
- Lead developer on Openstack initiative for CaaS, a multi-million dollar project to replace hundreds of HP blades running Hyper-V with Openstack (Icehouse) on white box hardware. Estimated to save Interactive 2/3rds on future hardware purchases.
- On team responsible for ensuring platform is highly available, scalable, and cost effective.

Senior DevOps Engineer @ Angie's List Sep 2013 - May 2014

- Designed and implemented a dramatically improved production deployment process, reducing code deploy time from 3 hours to under 2 minutes, while eliminating downtime. This led to an interview with BitTorrent featured here: <http://www.youtube.com/watch?v=yEriQW2evy4&feature=youtu.be>
- Managed several hundred Windows and Linux servers, (Blades, VMs, and AWS instances).
- Created various tools to improve company efficiency, all of which are in active use at Angie's List:
- Deployment Tool written in PowerShell, utilizing the Bittorrent Sync API. This also drastically reduced the complexity of deployments, with training for new employees previously taking roughly a month, new engineers are now able to understand the deployment process within hours.
- EC2 Management Tools (For managing and monitoring .NET services on auto scaled instances).
- Mass IIS Management Tool – For cycling IIS, Application pools, clearing folders, etc. on every server simultaneously.
- Combination of MDT images and PowerShell scripts to fully configure web servers.
- F5 Load Balancer Tool (Created an easier GUI for management of servers)
- Environment Status App (Written in PHP -- allows everyone to see the status of a given environment at any time, as well as tracking deployments/versions).
- Release Project Management Tool – Used for tracking releases from development to production, in order to identify slow points and current status of packages.
- Server Status & Performance App – Similar to Gomez, but specific to each server. Written in PHP and Powershell.
- Set up a Puppet Master for configuring developer environments on Windows utilizing Chocolatey (Like Apt-Get but for Windows).

- Rebuilt production servers from the ground up, automating as much as possible.
- Fully automated UAT Deployment.
- Actively monitored server status with (and managed) a variety of tools, including Gomez, New Relic, Orion, Nagios, Zabbix, and custom scripts.
- Maintained massive MS SQL and MySQL databases.

System Administrator @ IUPUIJun 2012 - Sep 2013

Manage all workstations and servers for the department, migrated data from an old OSX server to Windows Server 2008 R2. Manage backups, file servers, and Access databases. Maintain a wide variety of specialized Lab PCs (from Windows 2000, PowerPC Macs, up to Windows 7 and Mountain Lion)

System Administrator @ Beauchamp McSpaddenJuly 2009 - Aug 2013

Maintaining all workstations, reinstalling operating systems, hardware repair, supporting VoIP phone system, Exchange, Active Directory, Linux file servers, PHP programming, redesigning websites, VPN, and forming annual IT budget.

Adjunct Computer Professor @ FortisAug 2011 - Oct 2011

Taught basic computer applications class that incorporated a variety of hardware and software topics to students within the Medical Assisting program.

ResNet Technician @ Trine UniverisityAug 2007 - May 2008

Monitored network, repaired workstations, tutored students/staff on Adobe & MS Office suites, trained new employees, and in charge of all multimedia equipment.

Education

Indiana University 2015 - 2017

Masters of Business Administration (MBA)

Indiana University 2008 - 2011

B.S. Informatics

Personal Projects

DevOps Library 2016 - Present

Founded the "DevOps Library", providing free videos & courses for everyone in the DevOps community, as well hosting an annual conference. Over 300,000 watches on YouTube

<https://www.devopslibrary.com>

JenkinsSaltStackDevOpsVagrantELKPowerShell

Learning Sensu - Setting Up, Scaling, and Mastering DevOps Monitoring 2015

Video Course published through O'Reilly on monitoring with Sensu. <http://shop.oreilly.com/product/0636920044529.do>

SensuMonitoring