

# Zachary Horvath

MULTI-PLATFORM SITE RELIABILITY ENGINEER · CLOUD SYSTEMS ENGINEER

Seattle, Washington

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## Skills

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<b>Operating Systems</b>	Alpine Linux, CentOS, Debian, RedHat Enterprise Linux, Ubuntu, Windows Server 2019
<b>Core Technologies</b>	AWS, Azure, Bazel, ElasticSearch, FreeIPA, GitLab, Kafka, Kubernetes, PKI, VMware
<b>Tools</b>	Ansible, Bash, Chef, Docker, Packer, PowerShell, Python, Terraform, Vault
<b>Key Concepts</b>	Cloud Systems Architecture & Engineering, Containerization, DevOps & GitOps, Infrastructure-as-Code
<b>Languages</b>	English, Japanese (Basic)

## Professional Experience

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### Branch Metrics

Seattle, WA

#### CLOUD SYSTEMS ENGINEER II

Nov. 2019 - Apr. 2020

- Created tooling for Jupyter Notebook Server automation. Developed in Python with Bazel build integration and automated deployment in Kubernetes.
- Established CI/CD processes for static analysis of Android apps, featuring dynamic URL construction for crawling and binary decompilation using Python, automated with Bazel and Apache Airflow.
- Performed zero-downtime Apache Kafka and ElasticSearch migrations, leveraging multiple Kubernetes and AWS environments.
- Provided guidance on Terraform best-practices and laid foundation for multi-region deployments.
- Obtained in-depth training into Kubernetes, Apache Kafka, and Bazel, with supplemental hands-on experience with PostgreSQL, Python, NGINX, and ElasticSearch.

### Fred Hutchinson Cancer Research Center

Seattle, WA

#### SYSTEMS ENGINEER II

Apr. 2018 - Nov. 2019

- Rearchitected cross platform public cloud environments; including tools used, logical account management, user management, child account provisioning, and infrastructure automation.
- Worked towards containerizing legacy applications and offering Docker container consulting, design, and hosting as a managed Kubernetes service to staff.
- Designed and implemented a custom ElasticSearch-based search engine leveraging open source technologies and multiple unique data sources.
- Deployed Atlassian Jira, Confluence, and Crowd for SSO enabled cross-department productivity and documentation. Built workflows for teams to consolidate multiple issue-tracking platforms into one.
- Implemented Terraform, Packer, and Vault to automate secure infrastructure deployment and created training curriculum to evangelize new tooling. Modified existing open-source Terraform plugins to work with on-premises appliances. Extended functionality of these tools with creative Bash and Python scripts.
- Overhauled Chef recipes to more closely align with Linux best practices. Converted configuration management to Ansible playbooks and developed CI processes for deployment.
- Implemented GitLab to consolidate the Fred Hutch SCM/CI/CD strategy. Developed pipelines to allow data scientists and engineers to work with public cloud resources.
- Consolidated Linux machine management on FreeIPA to handle user authentication, SSH key management, and PKI. Federated with Active Directory domain and trusting the certificate authorities.

## Amplero Inc.

Seattle, WA

### NETWORK / SYSTEMS ENGINEER II

Feb. 2016 - Mar. 2018

- Designed and implemented new AWS accounts, facilitated cloud migration from VMWare to AWS infrastructure.
- Conducted migration from parent company's VMware environment to AWS, as well as splitting out other services such as Active Directory into FreeIPA, migrating Confluence and Jira, and migrating Exchange 2010 to Office 365.
- Managed a virtualized CentOS Linux environment with Windows machines to support Windows end-systems. Leveraged Puppet for all system configurations to maintain uniformity and version control, with Group Policy for Windows servers.
- Operated and deployed a large range of "big data" services across production networks, such as Cloudera Hadoop with Impala, HDFS, YARN, and Zookeeper. Other notable back end services include PostgreSQL and Apache.
- Provided operational T3 24/7 on-call support to internal teams working with customers around the world, working directly with customers on data integration efforts and coordinating data center resources.
- Responsible for providing primary IT support to a team of 45, as well as developing a training program for junior engineers.

## Globys Inc.

Seattle, WA

### SYSTEMS ENGINEER

Feb. 2014 - Feb. 2016

- Conducted minor penetration testing against internal and external hosts utilizing Metasploit and other open source tooling. Assisted in drafting and implementing recommended security fixes, and bringing infrastructure up to PCI compliance.
- Managed and deployed multiple VMware ESXi hosts, configuring for High Availability via vMotion.
- Provided continual support for company websites in both code optimization and content deployment. Made significant improvements on Drupal platform to reduce latency and increase security.
- Established Corporate IT knowledge base for documentation centralization. Implemented Lansweeper for asset tracking and to fulfill CMDB requirements for PCI.

## Industry Experience

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### Horvath Information Technologies

Greater Seattle Area, WA

#### OWNER / OPERATOR

Jan. 2013 - PRESENT

- Offered "A-Z" solutions for Small Business cloud infrastructure and software integrations.
- Drove multiple customer projects to success, maintaining consistent business and satisfied clients.
- Attended multiple startup and technology conferences and conventions for networking opportunities.
- Developed client infrastructure off of AWS, utilized PostgreSQL for database environment and vendor software to establish product network.
- Drafted whitepapers and security assessments for customer use, provided detailed runbooks to customer SOC's for threat mitigation and response strategies.

## Certifications & Awards

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### CERTIFICATES

2012 **OSCP**, Offensive Security Certified Professional

Bremerton, WA

2010 **A+**, CompTIA

Bremerton, WA

### COURSES

2015 **Pentesting with Kali**, Penetration Testing Course

Seattle, WA

2015 **Certified Ethical Hacking**, CEH v8 Exam Prep Course

Seattle, WA

2015 **Automating Administration with Windows Powershell**, Powershell Scripting

Seattle, WA

2012 **Pentesting With Backtrack**, Penetration Testing Course

Bremerton, WA

## Education

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### Olympic College

Bremerton, WA

#### ASSOCIATES DEGREE OF SCIENCE

2010-2013

- Participated in 'Running Start' with A.P. credits and full time technician jobs.
- Focused heavily on System Administration courses, with both Windows and Linux focus.