# NICK GRAHAM

Principal Infrastructure Engineer

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LinkedIn
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## SUMMARY

I'm Nick, an experienced systems engineer with a wide range of proficiencies ranging from simple Linux administration to complex automated application service deployments with Kubernetes.

Over the years I've worked to develop a broad set of skills across the IT space, and at the moment I'm using those to support developers and projects at Capital District Physician's Health Plan, a regional health insurance company in upstate New York.

## WORK EXPERIENCE

### Principal Infrastructure Engineer
Capital District Physician's Health Plan

2016 - Present

As a leader on the Linux engineering team I serve as the subject matter expert for Linux and its related technology stack. My responsibilities include creating architecture solutions, overseeing technology projects to completion, and implementing automation processes that reduce toil and solve business problems. I provide leadership in decision-making and hold responsibility for my team members.

In addition to these duties, I manage monitoring and incident response, ensuring high availability and system uptime. I also act as a liaison between the development and infrastructure teams, facilitating seamless collaboration and ensuring that developers have the tools and support they need to efficiently write and deploy code.

I primarily operate in a Linux environment on AWS and VMware, utilizing tools such as Kubernetes, Git, Ansible, Jenkins, and Python to build and maintain application server systems and pipelines that serve developers and business units.

Achievements:

- Architected and executed Single Sign-On (SSO) system expansion to AWS, creating a multi-region, highly available system with no downtime since its creation. This greatly improved the reliability of our authentication system for both employees and customers.
- Fully automated deployment and configuration management of Mulesoft application server architecture using Ansible, including over 80 individual services across 4 SDLC environments. This allowed for consistent, reliable, quick deployments of new services and updates.
- Led the containerization of legacy Tomcat services into fully automated, reliable solution on Kubernetes. This enabled developers to deploy new services with minimal effort, and provided a consistent, reliable platform for those services to run on.
- Created many CI/CD pipelines in Jenkins to turn complex processes like code builds, file deployments, or configuration changes into scheduled, or one-click operations. This greatly reduced the time and effort required to deploy changes, as well as reducing the chance for human error.
- Automated the transition from CentOS to RHEL, and subsequent upgrades to RHEL 9. This reduced the amount of labor required to perform these upgrades by the whole engineering staff.
- Organized and streamlined Ansible playbook usage, including the development of easy-to-use environment build scripts, and personal training/mentoring for other engineers. This enhanced the use of Ansible and improved automation capabilities for everyone's work across the team.
- Created a custom internal site with Python that integrates with our SSO system APIs. This provides users across the company with a central place to find SSO links, rather than relying on links maintained in wikis or emails.

Technologies used:

`Ansible` `Jenkins` `Kubernetes` `Linux` `Mulesoft` `Nginx` `OpenTelemetry` `Packer` `Ping Federate` `Python` `Red Hat Enterprise Linux` `Sumologic` `Terraform` `Tomcat` `Windows`

### Systems Engineer
Xerox Corporation

2013 - 2016

At Xerox I quickly rose to become the subject matter expert for a number of systems including our VMware infrastructure (thousands of hosts across 6 datacenters in the US, UK, and China), Commvault backup infrastructure, as well as an automated self-service tool I created that employees used to build sandbox environments and adjust the scale of production services. I also acted as a general systems engineering resource for both Windows and Linux server work.

Achievements:

- Led VMware expansion to two new datacenters in China, including hardware purchasing, deployment, and configuration.
- Architected and implemented up all of the backup infrastructure required to support disaster recovery for all of Xerox's systems
- Created a VM deployment process automation from the ground up with VMware Orchestrator.
- Enhanced the system lifecycle process around all of our VMware infrastructure. Everything from creation of new servers, patching existing ones, updating configurations, and server decommissioning was streamlined and automated in some way.

Technologies used:

`Commvault Simpana` `Linux` `Powershell` `SUSE Linux Enterprise Server` `VMware` `Windows Server`

### Information Systems Intern
Saratoga Hospital

2013 - 2013

For my senior year of college, right before graduating, I took up an internship with one of the larger hospitals close to me. There I learned about the interpersonal nature of IT, helping users and developers get what they need, more than I ever had in any of my college classes. I also started delving into automation and found my love for reducing toil.

Achievements:

- Created custom code for the ticket tracking system (Spiceworks), in order to add some custom fields and workflows that the base product didn't provide.
- Created a fully featured PC deployment solution using the Microsoft Deployment Toolkit (MDT). Before my arrival PC deployments were all done manually, clicking through the installer. After deploying MDT new PC builds were as simple as starting a machine and selecting the PXE boot option.

Technologies used:

`Javascript` `Microsoft Deployment Toolkit` `Windows Server`

### IT Technician
SUNY Canton

2009 - 2013

While in college I worked in my school's IT department. There I worked alongside the more senior networking staff and acted as a junior network engineer; making smaller scale cabling changes, adjusting VLANs and port statuses on switches, and just generally helping out around the shop.

Achievements:

- Created a PHP application called NETINV to track the association between switches, patch panel ports, and wall ports in classrooms. Identifying where various switch ports went was a huge hassle at the time, and my contribution removed the painful process of having to manually trace out each network connection when making port changes.

Technologies used:

`Linux` `Networking` `PHP`

## SKILLS & TOOLS

### Professional

Effective Communication
Problem Solving
Project Management
Teamwork

### Technical

Ansible
Apache HTTPd
Appdynamics
Artifact Repositories
Bash
Commvault Simpana
Docker
HashiCorp Packer
HashiCorp Terraform
Javascript
Jenkins
Kubernetes
Linux
Nginx
Ping Federate (SAML/Oauth)
Powershell
Python
VMware
Windows Server

### Others

`Active Directory` `Amazon Web Services` `Artificial Intelligence (AI)` `Change Management` `Configuration Management` `Databases (MSSQL, MySQL)` `DNS` `Documentation` `ELK (Elasticsearch, Logstash, Kibana)` `IIS` `Large Language Models (LLMs)` `Log Management` `Mulesoft` `Nagios` `Networking` `Nginx` `Oauth` `Physical Server Administration (Blade/Rack)` `Rancher` `Red Hat Enterprise Linux (RHEL)` `SAN Management` `Sonatype Nexus` `Source Control (Git)` `SSL/TLS Certificates & Ciphers` `Sumologic` `System Integration` `Ubuntu` `VMware Horizon` `VMware PowerCLI`

## EDUCATION

Bachelor's, Information Technology
SUNY Canton
2013

## CERTIFICATIONS

★ **VMware VCP6-DCV**
current

★ **Cisco CCNA**
2013

## LANGUAGE

English (Native)

## INTERESTS

3D Printing
Cars
Landscaping
Mechanics
Music
Robotics
Volunteer Firefighter