

Nicholas Anderson

Agent of Automation and Shaper of Systems

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Work Experience

- Aug 2020 – Present **Systems Development Engineer II, Amazon Linux, Amazon Web Services**, Hendon, VA.
Amazon Linux is among the most impactful Linux distributions in the cloud. Not only representing a significant market share among EC2 instances within AWS, but also for providing a solid foundation upon which every AWS service is built.
- My primary responsibility throughout my time as a SysDE for Amazon Linux has been around the processes and tools involved in a fast, yet safe, software release. This responsibility required a wide range of skills in order to provide the best experience for our customers:
- Deployment automation mechanisms to reduce the human cost of releases
 - Deployment safety mechanisms, including monitoring which feeds back to the deployment process
 - In-depth troubleshooting of customer instances
 - Understanding and evaluating security issues and their impact on our customers
 - On-call for high-severity and high-impact events
 - Supporting mechanisms for environments under network isolation
 - Compliance requirements including FedRAMP and PCI
- May 2016 – Aug 2020 **Systems Engineer III, Ops Reliability Engineering, Verisign**, Reston, VA.
Jenkins pipelines to improve the reliability and speed of highly-integrated remote site deployments.
Support high-performance load testing environment (up to 100Gbps) using tools such as Juniper Warp17 and DPDK pktgen.
Created and maintained Ansible, Puppet, Salt, Terraform environments, and created custom tooling (RedFish, PyVMomi) to maintain large-scale environment health and compliance.
24x7 Production support for products hosted in OpenStack, and for Arbor infrastructure components. Provided infrastructure (HP/Dell Servers, VMware ESXi/vCenter, KVM, Docker) and Linux/FreeBSD support for non-production environments.
- Feb 2015 – Jan 2017 **Data Center Operations, George Mason University**, Fairfax, VA.
Part-time shift position in the university data center. Job roles included application monitoring, support, and escalations. Additionally we were responsible for maintaining environmental factors such as HVAC controls, UPS monitoring, and site planning.
- Jun 2015 – Aug 2015 **Intern, Software Developer, Blue Canopy Inc**, Reston, VA.
Created tooling to measure and enforce Ubuntu compliance to NIST standards utilizing OpenSCAP and custom OVAL profiles.
- May 2014 – Aug 2014 **Intern, Front-End Web Developer, Hurdlr**, Washington, DC.
Performed front-end development on an HTML5 Cordova application for a small DC-based startup.
- Jun 2013 – Aug 2013 **Intern, GNOC Engineer, Time Warner Cable**, Herndon, VA.
Feb 2012 – Aug 2012 Created RMA Tracking web-app to integrate reporting feeds from various vendors.

Education

- Aug 2011 – May 2013 **Computer Systems Tech; Advanced Networking, Monroe Tech. Center**, Leesburg, VA.
Gained hands-on skills and certifications in computer systems and networking. Learned advanced networking concepts on Cisco equipment and fiber/copper cabling.

Technical Skills

GNU/Linux	Fedora, RedHat, Debian, Arch	Virtualization	Containerd, KVM, VMWare
Version Control	Git, SVN, Mercurial	Infrastructure	Kubernetes, OpenShift, OpenStack
CI/CD	GitLab, Jenkins, Concourse	Database	Postgresql, MariaDB, Mongo
Automation	Ansible, Puppet, Salt, Terraform	Programming	Python, JavaScript, Ruby, Go, C
Monitoring	AlertManager, Zabbix, Elastic ELK	Telemetry	Prometheus, InfluxDB, Grafana
Storage	Ceph, Gluster, LVM, MD	Linux Security	SELinux, AppArmor, SCAP
Certifications	SaltStack Certified Engineer, BEDC86AA		

Community Involvement

- Jan 2013 – Jan 2022 **Student-Run Computing and Technology (SRCT), Systems Administrator**.
Developed and maintained the server infrastructure for student-led and community-driven projects. Gave talks to teach the community essential skills for their future work.

Jan 2013 – May 2017 **GMU Linux User Group (GMULUG)**, *Member, event planner.*

Volunteered at their Linux install-fest and helped familiarize the new users of Linux with their new systems. Organized and went to the Free Software Foundation's 30th anniversary summit.