

# ALAN RAFF

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## SENIOR SITE RELIABILITY ENGINEER

### PROFESSIONAL SUMMARY

I'm an engineer with 10+ years of experience keeping systems secure, stable, and fast. Over the years, I've led major projects in cybersecurity and reliability, built tools that save time and money, and kept things running smoothly when it mattered most. Outside of work, I spend time developing open source projects and exploring emerging technologies like AI, Web3, and AR. I stay current with industry trends and hold certifications from CompTIA, LPIC, Rapid7, and EC-Council.

### CORE COMPETENCIES

- |                               |                              |                       |                           |
|-------------------------------|------------------------------|-----------------------|---------------------------|
| ▪ Agile & Scrum Methodologies | ▪ Python, bash & Powershell  | ▪ HTML, CSS & PHP     | ▪ Automation              |
| ▪ AWS, GCP, Azure & Alicloud  | ▪ Docker & Kubernetes        | ▪ JavaScript & NodeJS | ▪ Observability           |
| ▪ Puppet, Ansible & Terraform | ▪ GitHub & local git servers | ▪ Web3 tools & NFTs   | ▪ Root Cause Analysis     |
| ▪ MySQL, MongoDB & Postgres   | ▪ AI tools & APIs            | ▪ Malware Analysis    | ▪ Security Best Practices |

### PROFESSIONAL EXPERIENCE

#### SITE RELIABILITY ENGINEER | ThousandEyes

September 2022 – April 2024

- Ensured the availability of thousands of Linux servers hosted on AWS, GCP, Azure, and baremetal hosting providers
- Implemented automated patching solutions using Ansible/bash scripts to address Linux kernel vulnerabilities across thousands of geographically dispersed servers, achieving 100% security compliance globally within few days, fortifying infrastructure resilience and mitigating potential security risks
- Engineered workaround solution utilizing Puppet & Rclone to bypass Great Firewall of China, enabling seamless software updates for cloud agents in China, upgrading security and ensuring uninterrupted service delivery to regional customers
- Coordinated team projects via GitHub, enhancing Ansible, Puppet, and Terraform processes, fostering improved collaboration and accelerating project delivery timelines
- Maintained clusters of observability tools hosted in Kubernetes, ensuring constant availability of our alerting systems
- Provided timely emergency support to internal teams during off-hours via active participation in on-call rotations, ensuring minimal disruptions to business operations

#### SYSTEMS ENGINEER | Snyk

August 2021 - June 2022

- Revitalized GitHub security posture by implementing best practices and reducing incidence of leaked secrets, resulting in improved development team efficiency and strengthened protection of sensitive information
- Organized successful rollout of Workday software, expanding HR management capabilities and providing technical resources with streamlined system for managing employees, fostering improved organizational productivity
- Functioned as pivotal escalation point for various IT systems, including GitHub and Okta, employing astute troubleshooting skills to deliver swift resolution with minimal downtime

#### SYSTEMS ENGINEER | Rapid7

January 2019 - August 2021

- Developed comprehensive mobile device management (MDM) solution for Linux systems, including automated imaging, deployment, and encryption processes, resulting in enhanced data security and enabling software engineers to work seamlessly in a Linux environment, expediting workflows while maintaining alignment with development needs
- Engineered centralized system for automating imaging, deployment, and encryption processes using Ubuntu, resulting in standardized configurations and heightened security posture aligned with company policies
- Composed comprehensive documentation and conducted training sessions for technicians, promoting continual knowledge sharing while empowering teams to more easily manage day-to-day system operations

**HELP DESK TECHNICIAN/SYSTEM ADMINISTRATOR | Rapid7****November 2017 - January 2019**

- Authored custom automation scripts to identify and remediate unencrypted laptops within the network, resulting in significant reduction in number of vulnerable devices and bolstering organizational security measures
- Drove significant reduction in prevalence of unencrypted devices within network, fortifying organizational security and mitigating potential data breaches
- Collaborated cross-functionally with Linux, Apps, and networking teams to devise and implement effective solutions for enhancing organizational efficiency and productivity
- Acted as primary escalation point for resolving issues related to systems such as Cylance, Duo, Airwatch, GSuite, Crashplan, and Okta, ensuring swift issue resolution and minimal disruptions to operations

**HELP DESK TECHNICIAN | Massachusetts Port Authority****March 2016 - November 2017**

- Streamlined computer imaging and deployment processes by introducing cutting-edge software systems and conducting comprehensive training for team, resulting in significantly reduced onboarding times for new employees
- Orchestrated advanced IT helpdesk projects and oversaw large-scale system rollouts, ensuring seamless implementation and minimal disruption to operations; leveraged industry-standard solutions such as Proofpoint, Airwatch, SmartDeploy, Acronis, and VMWare to deliver efficient and reliable IT support services

**PROJECTS****Automated Satellite Radio Receiver**

- Constructed automated recording device utilizing Raspberry Pi, GPS module, and SDR technology, enabling seamless signal recording from International Space Station's amateur radio repeater, coupled with real-time image decoding from NOAA weather satellites

**Augmented Reality NFT Viewer**

- Engineered Dockerized web application to customize 3D models with images extracted from NFTs, showcasing innovative integration of augmented reality and blockchain technology

**3D Printed Dog Treat Dispenser & Video Chat**

- Designed, programmed, and assembled sophisticated pet monitoring device, allowing remote treat dispensing and live video streaming capabilities for pet owners, integrating seamlessly with web app developed in Python

**Hydroponics Grow Monitoring & Alerting System**

- Built prototype hydroponic nutrient monitoring system utilizing Python, Raspberry Pi, and MySQL database, enabling real-time data collection, analysis, and alerting, promoting optimal plant growth conditions

**EDUCATION & PROFESSIONAL DEVELOPMENT****Credits Toward Bachelor of Science in Cybersecurity**, Rochester Institute of Technology**Credits Toward Bachelor of Science in Cybersecurity**, Champlain College**Linux Essentials Certification**, Linux Professional Institute**Security+ Certification**, CompTIA**Certified Network Defense Architect**, EC-Council**Certified Ethical Hacker**, EC-Council**Radio Technician License**, Federal Communications Commission