Nathan Sholl

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WORK EXPERIENCE

Comcast   **Mar. 2023 – Present**
Dev-Ops Engineer

- Handled escalations / maintenance for Comcast DAA NGAN vCMTS architecture.
  - Used Bastion hosts to remotely access Linux network devices / routers / switches and respond to outages / escalations
  - Maintained Kubernetes based virtualized CMTS PG / pods / workers.
- Developed python3.11 pip installable package with custom objects and CLI entry point.
  - Built libraries for commonly used network devices with abstract base classes, formal interfaces, and factory methods.
  - Utilized asynchronous python for custom prometheus object with semaphore limiting and saw up to ~200 queries per second.
  - Set up GHA based CI/CD with wide code-covered unit tests, as well as project linting using Ruff, Isort, black and semantic versioning.
- Monitored and developed alerts / remediations for the entire vCMTS network.
  - Prometheus, AWS Lambda, AWS Step Functions, Python
- Maintained network device CI/CD pipeline.
  - Used Git, Ansible, Concourse to deploy network devices.
  - Also handled upgrades, patches, and tech refreshes.

Charter Communications   **Mar. 2022 – Mar. 2023**
Network Engineer   *Greenwood Village, CO*

- Designed & Maintained CI/CD Pipeline
  - Used Ansible to configure Gitlab-Runners on RPI with appropriate packages, permissions, variables.
  - Used Ansible in both ad-hoc and AWX
- Created Python Package with Command Line Entry Point
  - Developed in house tools to talk to different API and abstracted to command line arguments for easy use by whole team.
  - Used Gitlab pipeline to upload package to a J-Frog and Artifactory repository to allow for Pip install and version control.
- Developed Full-Stack Application to Report and Monitor Lab Equipment
  - Stack: EC2, Docker, Nginx -> PSQL -> Flask App with PSQL ORM Backend -> Bootstrap, jQuery Frontend with AJAX implemented for Large Tables and Graphs.
- Utilized TCP / IP Networking & Linux Fundamentals to Troubleshoot Lab Equipment
  - Strong Linux skills.
    - Ability to navigate and understand the Linux Filesystem Hierarchy Standard
    - Understands how to manually install packages by compiling code to binary, as well as using package managers such as apt.
    - Firm grasp of $PATH and how it relates to command / program usage.
    - Ability to create / modify user groups and file permissions.
    - Can use a terminal-based text editor such as, vim or nano.
  - Used Cisco Based CLI.
  - Strong Understanding of DHCP, VLAN, Routing Tables, Ipv6 and Ipv4.
  - Utilized Packet Capture

SKILLS

- **Skills:** Python, TCP/IP Networking, Linux, Amazon AWS (EC2, Route 53, S3, Lambda, Step Functions), Ansible, Team Leadership, Git, REST API, and a lot more that I'd love to talk about.