JAMES ANDREW CONNER

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SITE RELIABILITY ENGINEER

Detail-oriented engineer with 9 years of experience in design, deployment, and management of production software and hardware systems and services.

Site Reliability | Site Reliability Engineering | Software Systems | System Monitoring & Management | Payments Infrastructure | Automation | Coding | Microservices | Project Management

TECHNICAL SKILLS

Python | Go | C++ | Linux | Git | gRPC/Thrift | MySQL | MongoDB | Microservices | Infrastructure as Code | TCP/IP | routing protocols (BGP | OSPF) | Project Management | Docker | AWS | Chef | Ansible | Terraform

PROFESSIONAL EXPERIENCE

ALSAC - St. Jude | Memphis, TN   04/2023 – Present
Product Owner
Leading product and platform development for the Automation, Integration, and Middleware team to own and deploy configuration-as-code and infrastructure-as-code tooling and solutions for partnering teams throughout infrastructure and application development for both on-premise and cloud server and container/pod deployments. Working closely with various partners to bring software and service deployment practices and thinking into traditional-IT infrastructure teams.
- Ansible, OpenShift, AppViewX, Weblogic, Datapower

Meta | Menlo Park, CA   11/2020 – 01/2023
Production Engineer
Member of the Meta FinTech Payments PE team working to ensure reliability and scalability of payments infrastructure. Participating in combined call rotations with partner SWE teams as well as SEV review process. Participated in code changes to migrate synchronous service code to async to enable higher service throughput while reducing capacity demands.
- Python, C++, Chef, Tupperware, Scuba, Presto, SQL, Spark, Thrift
- led DR exercises to test DR planning and maintain compliance with a focus on DR automation
- Scaled out production database system, including legacy codebase changes, to allow room for new data growth while minimizing downtime and faults. Successfully navigated past a potential SEV-1 scenario that would have affected between 5% and 20% of all payments processing within weeks.
- Implemented changes in offline Spark data processing task parallelization that reduced working time by over 5x (reduction of 12 hours runtime to 2-3 hours for the largest workloads).

Dropbox | San Francisco, CA   07/2019 – 08/2020
Site Reliability Engineer
Built, deployed, and monitored microservices for automation of Dropbox network infrastructure in backbone, cloud, datacenter, and edge networks. Responsible for deployment and maintenance of team-owned Linux virtual machine instances hosting team services and tools. Participated in on-call rotation as well as technical SRE interviewing.
- Python, Go, Django, Grafana, SQL, Cisco, Juniper, Linux, Kubernetes, Mesos, gRPC
- Implemented features for network configuration services
- Led project to assess disaster recovery coverage for team systems
- Co-developed and presented HackWeek project to build a new general-purpose notification sink using Go and gRPC to enable SRE teams to build custom alert response automation services.
- Automated edge ACL deployment visibility for network engineers using Python, gRPC, RANCID, git, and Grafana and built alerts to eliminate toil for post-deployment validation.

AutoZone, Inc. | Memphis, TN   05/2016 – 07/2019
Systems Engineer
Reduced engineering time to build network configurations from hours to minutes by collating data from multiple sources into a templated configuration service backed by a relational database using Python, Jinja2, MariaDB, and Docker. Deployed and managed a wiki system to create and consolidate documentation for the Store Networks team. Participated in on-call rotation as well as technical interviewing for the Store Network team.

- Python, SQL, Cisco, BGP, MongoDB, Linux, Bash, Solarwinds
- Built data-scraping service to identify common network faults. The initial rollout of this system uncovered faults in nearly 10% of remote sites (600 of 6000) where existing monitoring showed around 1% of sites with faults which allowed the team to proactively repair sites during non-peak hours, increase remote site uptime, and migrate repair efforts from escalation-driven interrupts to scheduled project work.
- Converted SysV Init scripts in SUSE Linux into Systemd unit files in Oracle Enterprise Linux for deployment to over 30,000 production Linux machines.
- Built Python-based RPM package validation tooling for developers refactoring 32-bit applications to 64-bit.
- Coordinated between Store Networks and Store OS teams to validate and troubleshoot network and server upgrades in retail stores.
- Reduced mean time to repair on provider circuits by over 50% and increased site uptime throughout repair by nearly 100% by developing, standardizing, and documenting drain and undrain procedures for remote site circuits. Utilized Python and Netmiko to automate monitoring of repairs on circuits.
- Led technical design and configuration of high-availability remote sites across the US to support new business initiatives. Worked with management, business teams, and vendors to validate that design and deployment consistently aligned with and met planned goals.

Computers & Networks, Inc. | Memphis, TN   09/2015 – 05/2016
Systems Engineer
Deployed and maintained server, desktop, and network hardware and software for multiple business clients, primarily focused on Microsoft AD, Exchange, IIS, and Hyper-V.

Premier Satellite & Internet | Memphis, TN   05/2014 – 10/2015
Network Engineer
Managed 300-node wireless ISP network providing Internet services to multi-dwelling units and business customers in the greater Memphis area.

- Mikrotik, Ubiquiti, BGP, OSPF, TCP/IP, Python, Linux, Bash, DNS, wireless ISP infrastructure, DOCSIS
- Designed and deployed network infrastructure to double customer base over twelve months.
- Increased network resiliency and reduced operator error in the core network by redesigning and migrating from a flat layer-2 broadcast network to a dynamically routed OSPF network that required uptime and servicing of production user traffic throughout the migration.
- Designed, deployed, and maintained Ubuntu Linux servers to host monitoring and IPAM services for network management of over 4,000 interface, IP address, circuit, and node objects.

EDUCATION & CREDENTIALS

Coursework Completed – Mississippi State University