

Objective:

I am interested in finding a development and/or DevOps position involving **Linux**, **kubernetes**, and/or **open source** technologies. A position located in/near downtown Austin, or telecommuting, would be ideal.

Technical Skills:

Much of my career has been spent developing/creating custom, **Linux Standard Base (LSB)** compliant **Linux distros**. That experience has become an asset with recent **container orchestration** work I have done in the **cloud** on **kubernetes**.

I have a strong background in systems administration and development, am very familiar with rapid system development using scripting languages, and am well versed in developing web based, **database information systems**.

Languages: Python, shell, Ruby, Perl, PHP, Go (Golang), Java, Javascript, C, C++,SQL, HTML

Software/Technologies: Apache, NGINX, HAProxy, PostgreSQL, MariaDB, MySQL, git, jira, Jenkins X, sendmail/postfix (SMTP), DNS, NIS, NFS, IMAP, DHCP, tftpd, LDAP, PGP/GPG, VMware, Xen, KVM, Docker, buildkit, LXC/LXD, QEMU, python-virtualenv, make, expect, pthreads, libpcap, wireshark, tcpdump, JSON, YAML, Flask, Django, Authorize.net, Chargify, SQLAlchemy, ceph, rados, puppet, facter, hiera, Kubernetes, python-kubernetes, kubernetes, helm, kustomize, cluster-autoscaler, external-dns, eksctl, terraform, Amazon AWS and EKS, EKS GovCloud, Google Cloud (GCP) and GKE, Microsoft Azure and AKS, IBM Cloud and IKS, Let's Encrypt

Work Experience:

Senior Staff Software/Site Reliability Engineer (SRE), [ForgeRock](#); Remote/Austin, TX (Jan '22 - Present)

- Development of **devops automation tools** for deploying the ForgeRock Identity Platform to **kubernetes clusters**.

Senior Software/HPC Applications Engineer, [Nimbix](#) (Acquired by [Atos](#)); Remote/Austin/Dallas, TX (Nov '15 - Jan '22)

- Development, build, devops of the JARVICE **high performance computing (HPC) cloud platform**.

- **Python/Go** development of JARVICE software platform and shell scripting.

- Created/maintain continuous integration/deployment (**CI/CD**) builds of JARVICE using **Jenkins X**.

- **Dockerized** the entire JARVICE stack for docker-compose, docker swarm, **kubernetes**.

- Developed **JARVICE PushToCompute** CI/CD pipeline feature for building/deploying **containerized cloud applications**.

- Development of **terraform modules** and automation scripts to stand up **kubernetes** autoscaling clusters on AWS **EKS**, GCP **GKE**, Azure **AKS**, IBM **IKS** w/ JARVICE.

- Development/documentation/maintenance of JARVICE **helm chart** and scripts for cloud and customer deployments.

- **Added Google Container Filesystem (GCFS)** support to **GCP terraform provider** for **GKE image streaming** enablement.

- Contribute to open source projects as needed: GCP [Magic Modules](#), [AWS EKS Terraform module](#), [Kube-router](#), [eksctl](#)

- **Devops** work deploying/maintaining kubernetes clusters for development team.

- **Migrated** on prem data center development/testing/production systems to cloud services.

- Cross compiling/building JARVICE and creating Ubuntu/Debian packages as a part of platform enablement.

- Extensive use of **linux containers** (Docker and LXC) within the JARVICE cloud platform.

- HPC application configuration/deployment on the JARVICE cloud platform.

- Developed python based **Chargify** billing software.

Senior Systems/DevOps Engineer, [Yodle](#); Austin, TX/New York City, NY (May '15 - Oct '15)

- Migration to, and deployment of, Platform as a Service (PaaS) technology stack using Linux, **Foreman**, **puppet**, **VMware vSphere**. Platform services use **Docker**, **Mesos**, **Marathon**, **Chronos**.

- Monitoring of PaaS stack with **SolarWinds** and PagerDuty.

- Creation and execution of scripts to perform needed system functions.

- Participating in on-call rotation and servicing incoming tickets.

- Creating/updating puppet classes and managing/updating third party puppet modules.

- Creating/maintaining system wide apt repositories with **aptly**.

- Administration of Ubuntu and CentOS systems.

- Additional user administration using winbind and Active Directory.

Senior Software/DevOps Engineer, [Draker](#); Austin, TX (Nov '13 - Apr '15)

- Developed python, **Flask/WSGI**, **AWS** applications using **SQLAlchemy/PostgreSQL** w/ **RESTful API** using **JSON** data.

- Created a "Live" **ARM Linux** distro for Wandboard based hardware.

- Administration of Debian ARM Linux nodes in the field.

Senior Software Engineer, [Virtual Bridges](#); Austin, TX (Jan '10 - Oct '13)

- Chief architect, designer, developer of **LEAF** and **VERDEOS** Linux distros.

- Installed/configured **koji** in **KVM** virtual machines for building distros.

- **Makefile/kickstart/mock** scripting/configuration for building **RPMs**, ISO images, update packages, **PXE boot packages**.

- Integrated **VERDE** client components into LEAF "Live" Desktop distro.

- Continuous updating/backporting of distro components (kernel, X server, drivers, etc.) from newer Fedora releases.
- Patched/customized dracut, plymouth, other Fedora packages for LEAF.
- Developed **python/pygtk GUI** installer which installs LEAF to internal or external drives/USB sticks.
- Wrote python/pygtk GUIs for LEAF config, setup, support, gathering system hardware info, logs, etc.
- **Gnome** and other GUI customization/configuration for LEAF.
- Wrote custom rc startup scripts with **bash** shell.
- Created original LEAF based on Ubuntu "Live", migrated to **Fedora** based.
- Dev of **CentOS 6** based VERDEOS distro integrating VERDE server pieces.
- Customized/patched **anaconda** installer for VERDEOS.
- Developed RPM packaging for **Django** web applications.
- Developed RedHat **RDO/packstack** distro which configures **OpenStack** and **Django** web app **out-of-the-box**.
- Wrote **scripts** to automate RPM/ISO builds and deployments.

Senior Software Engineer, [Blue Coat Systems](#); Austin, TX (Apr '08 - Apr '10)

- Designed/developed/hardened **CentOS** based distro for **virtual/hardware appliances** running Blue Coat applications.
- **Integrated** existing Blue Coat products and management applications into customized **CentOS** based distro.
- Designed/developed **python/json** based **common application layer** used by products/applications.
- Wrote python **unittest** code for testing system components.
- Designed/developed **koji/mock** based build system. Patched koji and wrote python **expect** script to auto-sign RPMs.
- **Makefile, bash** scripting, mock configuration for **RPM** build system. ISO generation with custom **anaconda/revisor**.
- Automated scripts for development/test installation of BCOPA into Kernel-based Virtual Machines (**KVM**) via **libvirt**.

Senior Software Engineer, [Freescale](#); Austin, TX (Jan '08 - Apr '08)

- **Team** developed/supported global software release/distribution process.
- Developed process to **automate** the download, build, debug, installation and support of open source software packages.
- Automated system for **Red Hat Enterprise Linux** installs and upgrades.
- **Perl, Tcl/Tk, shell,** and **kickstart** scripting and **RPM packaging**.
- Wrote **python** scripts to automate the insertion of software usage metrics into **Oracle** and **MySQL** database systems.

Senior Linux Developer, [Uplogix, Inc.](#); Austin, TX (Jun '06 - Dec '07)

- Lead architect/developer of **Fedora** based, **embedded** distro for Envoy network management/monitoring appliance.
- Customized distro build environment/scripts, **make files**, RPM spec files.
- Customized **anaconda** system installer for the Envoy hardware platform.
- **Kickstart** and shell scripting to customize and automate system installations.
- Customized Fedora **RPMs** for distro. Created RPMs for JRE, Envoy app, etc.
- Shell scripting, with **bash**, of the various custom Envoy commands.
- Linux **kernel/device driver** development. Maintainer of the Moschip 7840 USB-serial driver.
- **Java** application coding. Much of which was for OS integration.

Senior Software Engineer, [High End Systems](#); Austin, TX (Nov '05 - Apr '06)

- C++ development of large lighting control application using the QT library.
- Worked on revamping the print system for the application using QT APIs.
- Ported threadx/windows client/server C++ application to embedded Linux.
- Build system development with autoconf, automake, libtool.

Senior Software Engineer, [Sensoria Corp.](#); San Diego, CA (Feb '05 - Nov '05)

- **Embedded Linux** development for mesh **wireless ad hoc networks**.
- **Client/server development** in C using glib and gnet on arm-linux/sh4-linux.
- Extensive use of GNU tools for debugging, tracing, profiling, cross-compiling.
- Use of kismet, wireshark, tcpdump for wireless network sniffing and analysis.
- Shell scripting and extensive use of **Perl** for test automation.
- C++ dev on Defense Against Cyberattack on Mobile Ad Hoc Networks project.

Staff Software Engineer, [IBM Corporation](#); Austin, TX (Jul '98 - Feb '05)

*** Worked in IBM's **Linux Technology Center (LTC)**.

- Worked developing special purpose Linux distros.
- Worked extensively in **patent/IPL review** processes.
- Wrote **C/ncurses** test suite for RS485 serial protocol and device driver.
- Worked as **team lead** of the network I/O and device driver team.
- Contributed to [Linux-ATM](#), evaluated/tested/recommended third-party **ATM** solutions for LTCs carrier Linux project.
- Configured/administrated Cisco IOS ethernet/ATM routers/switches for ATM testing.
- Developed/maintained [Mwave](#) modem Linux driver and application software.

*** Worked on Linux based **server appliances**.

- Developed/patented **ARP**find method/software to dynamically assign IP addresses to headless servers using **libpcap**.
- Maintained and configured the **Linux kernel** used by the appliances.
- Developed Perl scripts and **J2EE Java servlets (JSP)** to configure server network settings.
- Produced **Makefiles** and **RPM SPEC** files for the build architecture.
- *** Prototyped "**Managed Linux Clients**".
- Developed/demoed **remotely booted/managed** Linux clients and management tools.
- *** Component owner of **JavaOS System Database (JSD)**.
- Developed **web based, glimpse** JOS source code index and search utility.

Web Applications Developer, [SmithBucklin](#); Chicago, IL (May '95 - May '98)

- Designed/developed mailer/MTA system incorporating **web tools** for database administration.
- Interacted with clients to develop **PHP** and **Perl web apps** and **Java applets**.
- Installed/managed sendmail and other apps, wrote **Perl** helper scripts, etc.
- Developed **Java/JDBC/J2EE** billing system which tracked data in a **RDBMS**.

Systems Administrator/Webmaster, [St. Joseph's College](#); (Sep '94 - May '98)

- **Consulted**/contracted with the school to revamp the Unix based network.
- Set up and administered **DNS, NFS, sendmail, IMAP**, etc.
- Designed/built **dynamic web site** with **team** of student admins using **Apache, PHP, PostgreSQL**.
- System administration of the **Unix (SunOS, Solaris, Linux)** network.
- Developed, admined, supported web based teacher evaluation software.

Education:

University of Texas at Austin
 Graduation Date: Dec 2002
 GPA: 3.2 / 4.0

Degree: Master of Science in Engineering
 Discipline: **Computer Engineering**
 Specialization: **Software Engineering**

Saint Joseph's College
 Major GPA: **3.9 / 4.0**
 Cumulative GPA: 3.4 / 4.0

Degree: Bachelor of Science (May 1998)
 Major: **Computer Science**
 Minor: Mathematics