Michael Terzo

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Summary

I consider myself a full-stack developer. I have extensive experience in software-defined infrastructure, overlapping with dev-ops, with 'dev' heavily emphasized.

Various Skills

Languages	C, Java, Python, PHP, C++, Ruby, Shell, SQL, Objective-C
Operating systems	Linux, Solaris, OS X, Nexenta, openSolaris
Databases	mySQL, PostgreSQL, sqlite, LDAP, Cassandra, MongoDB, Berkley DB, RRD, Oracle, Solid
Networking	TCP, UDP, BGP, DNS, dhcpd, tftp, routing, netfilter, libpcap, tcpdump, Bind
Web	HTML, CSS, Javascript, Django, AJAX, XML, XSLT, REST, SOAP, Nginx, Apache, lighttpd, squid, Ruby on Rails
Storage	Ceph, NFS, ZFS, iSCSI, gluster, lustre, AoE, FC, FCP
Continious Integration/Continuous Deployment	Docker, Kubernetes, Swarm, gitlab, gitlab-ci, Docker Hub, GitHub, travis-ci, Jenkins, Ansible, Puppet, Nexus, Atifactory.
Tools	GCC, make, ansible, autoconf, git, CVS, Subversion, Robot Framework, ant, ivy, archiva, rake, buildbot, dmalloc, gprof, VI, XCode, TextMate, pxeboot, syslinux, dpkg, rpm

Work Experience

Apr 2017 - Current **Sr. Software Engineer** at Vecima (Atlanta, GA)

I work with a small scrum team where each team member provides expertise in development, UI, and quality assurance. We build a productized clustered storage appliance based on Ceph, providing large amounts of storage primarily for use on CDNs for cable-providers that are transitioning to IP streaming content.

With my experience and expertise, my influence can be seen throughout the product. The first problem I solved was streamlining our installation. Our old manual installation process required 4-7 days to install our software. Using Ansible, I built an automated process that now installs our software on clusters in under an hour. Later, I expanded this process to include the provisioning of a dynamic number of virtual servers in openstack, and subsequently installing our software on these nodes. This process is in each Merge Request Pipelines in Gitlab.

I also increased stability and performance of the product by redesigning how we build the installation ISO. Once I created the new build platform, I was able to upgrade the kernel and system packages as well. This allows other developers to easily update to or add new packages. Once I was able to build an updated OS, I demonstrated that we achieved a 2-4x improvement in performance. To continually test performance I built a cluster performance suite inspired by CBT (https://github.com/ceph/cbt). This suite utilizes docker containers to provide various pluggable client functionality.

I continue to advance our cluster platform by migrating parts of our application to run in containers. I am the company expert in containerization and guide all development teams on how to transition their applications/services to containers.

Jan 2012 - Jan 2017 **Principal Software Engineer** at EMC (Atlanta, GA).

Transitioned a small team from legacy operational management to Dev-ops. Provided educational material and multiple training sessions for a globally dispersed team on how systems are managed through code using Puppet and Hiera. Architected a TDD model in the CI pipeline for system configuration to reduce change failure. This transition reduced the incident ticket volume significantly, allowing the team to focus on new functionality instead of "Fire fighting".

Led several teams in their transition to weekly/manual build process to CI/CD pipelines to reduce time to market for their applications.

Customized 3rd party network drivers extending the standard SFP read to expose propriety data. Added custom ethtool hooks to support specialized card support to alteration of extended card functionality. Optimized system configuration to achieve ~37Gbit/s. Wrote user-space drivers for Fiber Channel cards exposing them to the FCP layer.

Wrote extensions to Robot Framework to enable test automation for a complex network appliance allowing any skill level to write end-to-end tests. Provided technical knowledge of linux kernel to double application performance. Provided event and alarm service with a shared library to centralize reporting to integrate with division wide call home support.

Oct 2011 - Dec 2011 **Lead Software Engineer** at SRA International (Atlanta, GA).

Led a team of Scientists specialized in bioinformatics doing DNA sequencing research. Defined best practices for coding. I took application requirements from subject matter experts at CDC to define the architecture for systems and tools.

Nov 2007 - Oct 2011 **Sr. Software Engineer** at Internap (Atlanta, GA).

Led the migration and redesign of the Internap's Flow Control Platform routing appliance. Designed and developed the next-generation Global Anycast DNS. Designed the continuous integration environment for all projects I was involved in.

Jan 2003 - Nov 2007 **Sr. Software Engineer** at Earthlink (Atlanta, GA).

I developed a performance monitoring application with pluggable modules, to measure performance and health of all Earthlink's core production services. Wrote an inverted index search engine for customer log data to provide sub-second searching for call support techs.

July 2001 - Jan 2003 **Software Engineer** at Earthlink (Atlanta, GA).

I designed and developed an enterprise wide ticketing system. I migrated the company's auhorization from three separate systems to single solution and phone directory using LDAP.

July 2000 - July 2001 **Apprentice Software Engineer** at Earthlink (Atlanta, GA).

I managed and developed the authoritative DNS tool with a web front-end. I developed a system configuration snapshot tool for operational SAs to use. I developed an application to test internal network modems with integration for alarms into NetCool.

Aug. 1999 - June. 2000 **Systems Administrator/ Web Developer** at CS @ WKU (Bowling Green, KY).

I maintained, upgraded, and set up 30 lab machines including several faculty and staff computers. I integrated a Novell volume on a Linux server and shared that volume to Windows 95 clients with Samba. I also designed the Computer Science Departmental Web page.

Education

2016 **Puppet Architect** Puppetlabs (Atlanta, GA).

Completed the Puppet Architect class. This was the only course I took in the series.

2015 **Scrum Master Training** (Atlanta, GA).

I took the course and passed the scrum master certification exam.

1996 - 2000 **Computer Science with a Specialty in Mathematics** Western Kentucky University (Bowling Green, KY).

Other

May 2019 - Current **Single-A Vice President** Atlanta Amateur Hockey League

I was elected by my peers to manage over 400 players and 25+ teams in 4 different levels of hockey. I ensure team captains have the resources they need to build and manage their teams. I handle any player disputes. I'm a voting member of the league board which services 1600+ hockey players.

Feb 2017 - Current **Owner** at Hunzo Technologies LLC (Atlanta, GA)

My passion is experimenting with technology, this passion does not always align with my day to day sprint tasks. I created this LLC to provide an umbrella where I can learn and play with new technologies.

References

Available upon request.