

Sean Caron

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Skills

C/C++, Perl, Python, Golang, UNIX shell, HTML/CSS, JavaScript, SQL, MATLAB, R, VHDL, Assembly

Mac OS X, Windows Server, Linux, FreeBSD, Solaris, OpenVMS, VMware ESXi

ATM, 1/10/40/100 Gigabit Ethernet, Fibre Channel, TCP/IP, Cisco IOS/NX-OS, Juniper JUNOS, Mellanox MLNX-OS, Marconi Forethought, Nortel Meridian, Avaya Definity, Qlogic SANbox, Promise vTrak, DDN SFA OS

AFS, Apache, Asterisk, AWStats, ISC BIND and DHCP, Cacti, Cosign SSO, CUPS, Drupal, Ganglia, Gitlab, Globus Connect Server, Joomla, Kerberos, Kickstart, KVM, Lustre, MediaWiki, MySQL, Nagios, NFS, OpenLDAP, OpenVPN, OSSEC, Postfix, PostgreSQL, Puppet, RANCID, Samba, SLURM, SNMP, Sun Grid Engine, Xen, ZFS

Education

UNIVERSITY OF MICHIGAN COLLEGE OF ENGINEERING, ANN ARBOR, MICHIGAN

Sep 2001 - Dec 2009: Bachelor of Science in Engineering (Electrical Engineering)

Concentration in signal processing and control systems.

Experience

UNIVERSITY OF MICHIGAN CENTER FOR STATISTICAL GENETICS, ANN ARBOR, MICHIGAN

Feb 2011 – Present: UNIX Systems Administrator

Lead systems administrator of an Ubuntu Linux-based HPC environment consisting of around 8,000 threads and 24 PB storage in support of a leading genomics center.

Executed cluster expansion of an order of magnitude or greater in all dimensions over five years. Dramatically improved availability to in excess of 99%.

Managed specification and procurement with yearly CapEx of up to \$1MM. Wrote job descriptions and conducted interviews. Created documentation, policies and operations playbooks. Performed functional supervision of contract staff.

Administered common enterprise infrastructure services including Apache, ISC BIND and DHCP, MySQL, NFS, OpenLDAP, OpenVPN, Postfix and VMware ESXi.

Implemented automated provisioning, statistics gathering and reporting with Cacti, Ganglia, Nagios, OSSEC, Kickstart, Gitlab, Puppet, SNMP and custom tooling.

Deployed and managed Cisco, Juniper and Mellanox switches. Rolled out 10, 40 and 100 Gigabit Ethernet. Planned and executed seamless switch, IP subnet and VLAN migrations. Deployed RANCID for revision control of switch configurations. Designed IPtables firewall rulesets.

Managed Fibre Channel SAN consisting of QLogic SANbox switches and Promise vTrak NAS units. Constructed storage arrays of up to 1.2 PB in a single system using commercial off the shelf enclosures, HBAs and disk drives with MD RAID. Managed DDN SFA14KX NAS with ISKLM and NFS protocol translation.

Created and maintained dynamic Web sites and systems administration tools in Perl, Python, Golang and UNIX shell. Administered Drupal, Joomla and MediaWiki.

UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH, ANN ARBOR, MICHIGAN

Feb 2006 – Feb 2011: Systems Administrator Associate

Lead administrator of all Linux and Solaris systems at a constituent school of the University of Michigan. Managed mission critical services including Apache, AFS, Kerberos, MySQL, BIND, CUPS, DHCP and Postfix with extensive use of Xen and VMware ESXi virtualization.

Assisted with general administrative tasks on Windows Server 2003/2008 in Active Directory. Repackaged Windows applications for automated deployment.

Managed Cisco and Juniper switches running IOS, CatOS and JUNOS. Performed pilot testing of Bluecat Proteus DNS/DHCP appliance. Assisted with configuration of Checkpoint firewall.

Provided expert support to end users running Mac OS X, Windows, and Linux.

PART-TIME, FREELANCE, STUDENT AND INTERNSHIP WORK 1998 - 2006

Computer repair, systems and network administration, desktop support. Details on request.