Victor Erminpour

SENIOR SOFTWARE ENGINEER & LINUX PLATFORM SPECIALIST

+ CONTACT

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+ SUMMARY

Senior Engineer with extensive knowledge and experience building Linux enterprise systems. Experience with Linux kernel development and device drivers on multiple architectures. Expert in hardware and software performance tuning and testing with an emphasis on Software Engineering best practices. Interested in a challenging Senior Software Engineer position.

+ EXPERIENCE

SENIOR PLATFORM ENGINEER
SS8 NETWORKS
MAY/2013 - CURRENT

Senior Platform Engineer responsible for implementing and maintaining a security hardened Linux based platform for all company Lawful Intercept product lines. Coordinate with application groups to optimize application performance and security. Create and maintain Linux distribution based on RPM along with YUM repositories for all product lines. Responsible for system-level security for all products including automated security scanning using Nessus and XML-RPC. Maintain third-party device drivers for specialty telecommunications hardware. High Availability and MySQL Clustering using Pacemaker and custom resource scripts. Maintain git build machines for group.

SENIOR SOFTWARE ENGINEER
TRIPWIRE
MAR/2011 – MAY/2013

Senior Platform Engineer responsible for implementing and maintaining a Linux based platform for all company product lines call Ironwood Linux. Created Linux distribution based on RPM and CentOS 6. Backported blackhole sysctl from FreeBSD/grsecurity project to Ironwood. Ported Intel 82574L drivers to FreeBSD 7.2. Fixed RHEL6 Intel 82574L driver ASPM issues. Ported legacy FreeBSD C userspace code to Linux. Platform and application level IPv4 to IPv6 porting effort along with solving customer issues and escalations.

SOFTWARE ENGINEER
CISCO SYSTEMS
APR/2006 – MAR/2011

Linux kernel generalist working on the Cisco ACE XML firewall and the Cisco ACE load balancer products. Participated in all development phases including gathering requirements, design, coding, unit testing and product benchmarking. Planned and implemented ACE XML product migration from Linux 2.4 to 2.6. Back-ported kernel patches to the MontaVista Linux kernel on MIPS and x86 architectures for custom BSP. Implemented the Cisco ACE XML installer and updater by modifying and maintaining a customized Linux RedHat distribution. Ported the Cisco WAAS appliance to the VMware virtualization platform. Maintained Linux kernel drivers for PCI SSL offload devices. Configured and implemented complex software builds using make and apache ant. Provided third-level support for customer issues and escalations.

SOFTWARE ENGINEER

PENGUIN COMPUTING
JAN/2005 – APR 2006

Designed and developed the Scyld Cluster Operating System for Scientific Research. Worked on the BProc Kernel Process migration technology for Linux HPC clusters. Designed a diskless, small footprint compute-node provisioning system using Bproc and PXE. Ethernet and InfiniBand Linux device driver support, modifications, and troubleshooting. Analyzed and resolved customer related issues.

+ TECHNICAL SKILLS

Operating Systems

Linux kernel patching and rebuilding stock kernel and Red Hat RPM, device driver programming (NIC driver, UART driver, custom IPC mechanisms, cross compiling for various architectures (x86, x86_64, EM64T, ARM, MIPS, PowerPC), 32-bit kernel memory zone layouts, kernel crash/Oops debugging kgdb, SysReq, printks, kernel stack corruption, Linux/FreeBSD rootkit techniques , KVM, libvirt, QEMU

System Development

Processes, threads (POSIX), signals, named/unnamed pipes, message-queues, semaphores, shared memory, remote procedure calls, sockets, Low-level I/O, I/O multiplexing (select, poll), libraries, linking and loading, runtime data structures (text, data and bss segments, stack frames), virtual memory, gdb debugging, gcc extensions, make, Bash, GNU Make, cvs, svn, perforce, git.

Hardware

Server monitoring (IPMI, SNMP, Ganglia, Nagios), PC Architecture (I/O APIC, SMBIOS, Northbridge, Southbridge, bus I/O controllers), PCI/PCIe data bus (UPnP), Symmetric Multiprocessing (SMP, MP Configuration Table), Non-Uniform Memory Access (NUMA), I/O ports, DMA, hardware/software interrupts, context switching, virtual machines.

Networks

TCP/UDP socket programming, raw sockets, IPv4/IPv6, Linux kernel network programming, NIC device driver, sk_buff), LAN, Ethernet segments, CSMA/CD, ARP, VLAN, ARP poisoning/IP takeover, WAN 802.11 Wi-Fi CSMA/CA, CTS/RTS, IP routing protocols , RIP, BGP, OSPF, link-state vs. path/distance vector, client/server design, iterative, concurrent, pre-forked, pre-threaded. Policy Routing, QoS, iptables, network access control.

+ EDUCATION

NOTRE DAME DE NAMUR UNIVERSITY
2006 – 2009

BA, Liberal Studies