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Experience

Sonic Dawg Corp :: Sole Proprietor **Aurora, CO, Lawrence, KS (Mar09->Current)**

- ∞ **Independent software development** : (note: more detail about open source projects on page 3)
 - ∞ open source: VirOS(bash), TouchWammy(c, ogl), LiveUSBurner(c, qt)
 - ∞ web service: CloudsessionControlCenter (javascript, php, mysql, css)
- ∞ **Freelance open source work** :
 - ∞ pokerth: a non-gambling mmo poker game with seasonal ranking system (qt, c++)
 - ∞ rakarrack: a guitar/audio live f/x processor (fltk, c, jack)
- ∞ Amateur music, fiction, and non-fiction self-published at CloudSession.com

VMWare: R&D :: Software Engineer **Palo Alto, CA (Mar08->Feb09)**

- ∞ Linux installer development and maintenance (perl, python, rpm, deb, bugzilla)
- ∞ Operating-System Specific Packages: development and launch (packages.vmware.com)
- ∞ Guest tools software update mechanism enhancement and maintenance (c++)

note: see Education and Open Source sections on page 3 for 2004-2007

Keyhole Corporation :: Member Technical Staff **Mountain View, CA (Jun02->Apr04)**

Role: Operations Engineer / Systems and Network Admin

- ∞ Administered 24/7 high bandwidth colocated Keyhole cluster (aka EarthViewer/GoogleEarth)
 - ∞ Netscreen 100 load balancer, Cisco switches, Netapp and linux raid nas
 - ∞ webservering: apache/custom, webalizer, hardening/security, maintenance
 - ∞ custom cluster management scripts (bash, perl, ssh, gnuplot)
- ∞ Deployed pxe net boot server for deployment of workstations and cluster nodes. RedHat/Fedora
- ∞ Designed and implemented blackbox linux demo server to assist sales and marketing.
 - ∞ dns & dhcp server, 802.11, vmware virtualized win2k server
 - ∞ 'zero admin', i.e. vmw repeatable resume, customized boot scripts and autoconfiguration
- ∞ Managed mail servers and relays. (imap, pop, sendmail, postfix)

Role: Software Engineer

- ∞ Designed and implemented first gui for our server software and geo-database processing tools.
 - ∞ For customers scared of command lines and linux. (perl, cgi, bash, c++)
- ∞ Performance tuned terrain data processing software by improving caching algorithms. (c)

Role: Customer Support Engineer

- ∞ Enterprise and customer support, via phone, email, and trouble ticket systems (rt2, bugzilla)
- ∞ Documented keyhole's server side and database generation enterprise tools. (html)
- ∞ Traveled to Congo (DRC: Kinshasa, Kisangani) to deploy a custom solution for the UN peacekeeping mission there. Trained and assisted the local GIS systems staff.

FBN Linux and Consulting: Sole Proprietor

California (Apr00->May02)

Role: Network Contractor

- ∞ Performed short contract work for GenericMedia, Intrinsic Graphics, and other small startups.
 - ∞ mail, dns, dhcp, raid/nfs servers and configuration, etc...

Role: Linux Distribution Design

- ∞ Created a live-cd rpm based linux distribution generation system.
 - ∞ Inspired by bick/bblcd and derived from Mandrake Linux 7.0-8.2.
 - ∞ highly custom initrd/nash and early boot sequence
 - ∞ handled limitations of read-only, ram, and loopback based root filesystems.
 - ∞ hardware and software boot-time autoconfiguration. i.e. no 'install/config' required.

GigaPixel Corporation: Member Technical Staff

Santa Clara, CA (Aug97->Mar00)

Role: Software Engineer

- ∞ Implemented a cross platform (windows/linux) verification framework for Direct3D tests.
 - ∞ Used to generate test vectors to stimulate our hardware (and software simulators).
 - ∞ Also wrote many of the individual tests in c++/D3D, and maintained the infrastructure.
- ∞ Wrote extensive automated regression tests for the software simulators. (perl, tcsh)
- ∞ Developed custom x11 applications (c):
 - ∞ image diff utility
 - ∞ fast, high resolution uncompressed movie player
- ∞ Performed off-site and on-site client technical support.
- ∞ Packaged and delivered our product - and interim releases - to clients.

Role: Sysadmin

- ∞ Deployed a 50+ node network of NT/98/Linux/Solaris/Irix hosts and servers
- ∞ Implemented and Maintained :
 - ∞ internal and external web/ftp servers
 - ∞ windows vpn server (pptp)
 - ∞ cvs source code control server, gnats bug database server
 - ∞ linux firewall: mail relay, socks proxy, later nat
 - ∞ intranet and extranet mail, nat, groupware, and time servers (smtp, bind, ntp)
 - ∞ tape backups, raid arrays, network file servers (nfs, samba)
- ∞ Purchased/ordered/setup/configured the majority of systems and network hardware.
- ∞ Worked trade shows, setting up booth hardware, and running demonstrations.
- ∞ Researched and deployed tools for Windows/Linux interoperability, and co-development:
 - ∞ samba, cygwin, VMWare, vnc, win32 clients for gnats, cvs
- ∞ And everything else that needed to be done while growing from day 1, to a 40+ person team developing cutting edge 3D GPUs, licensed by Microsoft, Neomagic, and ultimately acquired by 3DFX and then Nvidia.

KU's TISL: Research Assistant

Lawrence, KS (Jun96->Oct96)

University of Kansas Telecommunications and Information Sciences Laboratory (now ITTC)

- ∞ Designed and implemented source code control frontend tools (using tcl/tk, rcs)
- ∞ Installed development tools and libraries on the unix network

FBN Video / Planet Pinball: Assistant Manager

Lawrence, KS (May92->Jun97)

- ∞ Tended to a video game and pinball arcade

Education

University of Kansas

Lawrence, KS (Fall93->Spr97, Fall04->Spr07)

Bachelor of Science -- Computer Engineering -- GPA 3.000 -- Graduated May 2007

Open Source Contributions

For further information including sample code please visit -

<http://cloudsession.com/dawg/stuff/resume>

Anaconda and Fedora LiveCD-Tools: redhat/fedora installation and livecd mastering toolset

- ∞ Various performance enhancements, features, and bugfixes (python), including-
 - ∞ Reclaimed 34MB of wasted space from the Fedora-7-Live-686 700MB LiveCD
 - ∞ Improved speed of Fedora-8 LiveCD installer by more than 50%
 - ∞ a straightforward, but not easy bugfix
 - ∞ a very non-trivial device mapper optimization
 - ∞ Fixed a bug (not mine) which was causing data loss in some F7 install situations

Rakarrack: a very popular guitar/audio f/x app (virtual stomp boxes)

- ∞ Global Wet/Dry DSP feature and a GUI slider control for it (c++/fltk)
- ∞ MIDI code refactoring/shrinking(c++)

PokerTH: a popular non-commercial/non-gambling multiplayer online texas holdem game

- ∞ Added sound for card-dealing to better signal next-hand transition (c++/qt)

Original Projects:

- ∞ **ZyX-LiveInstaller** (python, bash)
 - ∞ A rebootless LiveOS installer, adopted as the install to system disk solution for the v2 'blueberry' release of the Sugar On A Stick open source project from SugarLabs. SugarLabs is most famous as a key part of the One Laptop Per Child (OLPC) project.
- ∞ **Guitar-ZyX** (python/pygtk+glade, c, ogl, perl, bash, rpm, arm7/9/x86)
 - ∞ A Fedora derived electric guitar live audio f/x processing appliance 'LiveOS'. The GZ-MCP component provides a Nintendo-DS wifi dual-axis touchscreen remote control.
- ∞ **Q-FakeRoot** (bash)
 - ∞ A virtualized (via qemu) enhancement of the standard unix 'fakeroot' utility. Now more or less obsoleted by libguestfs which RedHat subsequently implemented with a fundamentally similar design.
- ∞ **VirOS** (bash, perl, c)
 - ∞ Generates derived LiveCD/DVD/USB distributions while securely not requiring root privileges. Similar to the more recent boxgrinder and other provisioning projects.
- ∞ **Snake3D** (c)
 - ∞ An unoriginal and simple OpenGL video game.

References are available on request * Available to start immediately

Currently residing in Lawrence, Kansas * Able to relocate