

Resume

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Please email me (in text, not HTML) if you wish to call me.

Expertise

Computing

- Linux systems administration
- Linux distribution development
- Package building (Slackware, Arch Linux)
- Scripting: Lua, shell scripting, regex, little bit of PHP, HTML (I try for valid XHTML 1.1), CSS
- Basic usage of: CVS, SVN, GIT, Mercurial
- Server administration: Apache (ages ago), Lighttpd (many installations), PHP, MySQL, PostgreSQL, ngircd (IRC daemon), ircu (IRC daemon), vsftpd, OpenSSH, NIS (once with NFS for a roaming profiles like setup), NFS (would rather use SSHFS), SSHFS, Samba, Sendmail, Postfix, pop3ad (I will probably move to dovecot), imapd (dovecot can replace this too), ntalk, CUPS (I am looking for an alternative to CUPS), nsd (authoritative DNS), MaraDNS, Unbound, rsync, mpd, little bit of icecast, software RAID, OpenVPN, quota, dnsmasq
- IPv6-specific: Connecting to tunnel brokers over SIT, building packages that are IPv6-enabled by default, radvd, dhcpv6 (I prefer stateless), rdnsd for stateless DNS client-side, concepts of multicast
- Security: SSH tunneling, encrypted rootfs with dmccrypt/LUKS (I would recommend loop-aes with key scrubbing enabled instead, due to the DRAM data retention proof-of-concept exploit), some experience with stack smashing, man-in-the-middle attacks, ARP poisoning, some war driving, SSH certificate-authentication, GNUPG, SSL, cross-site-scripting, general "web hacking", SQL injection, concepts of buffer overflows, fork bombs, Grsecurity Linux kernel patch, DOS
- Security tools: hping3, nmap, Nessus
- Client-side software: Little bit of Abiword, some Open Office, Vim, Firefox, Pidgin/Carrier, screen, Thunderbird, some Claws-Mail, naim, cmus, irssi, some GIMP, XINE, MPlayer, Transmission, ffmpeg, openntpd, lftp, nc, QEMU, BASH, libburn, cdrkit
- Desktop environments (ordered by experience): Xfce, E17, KDE, Openbox, GNOME, Fluxbox
- Alternative firmwares on routers (OpenWRT, DD-WRT)
- Protocols: HTTP, FTP, NTP, DNS, SSL, IRC, concepts of BGP, SMTP
- Web applications: Drupal, Mambo, Joomla, PHPBB, Mediawiki, PHPList

Hardware

- Have built multiple x86 desktops and servers, some laptop disassembly experience.
- Experience with opening up most Dells (white box P3s mostly, P4s, some servers), some older NECs, and most computers that I have owned I have modified in some way.
- Understanding of the limitations and capabilities of: ISA, EISA, PCI, PCI-Express, AGP, Cardbus, PCMCIA

- Very conscious of keyboard quality, sound quality, and screen quality
- Can find and locate compatible hardware parts with most hardware
- Able to create a whole workstation solution from the ground up, while being conscious of cost, reliability, usability, and quality
- Able to diagnose hardware, set jumper settings, adjust BIOS settings (want to try out coreboot, an open source BIOS), recycle old hardware
- Enjoy breathing life into old hardware with lighter, open source software
- Some CAT-5 wiring experience
- Sound systems

Projects

- Zenserver, a Zenwalk (Slackware fork) server derivative. It is currently deprecated, but was a great success
- Icadypes, a beta and experimental Arch Linux fork
- eleutherNet, an IPv6-internally public VPN. Complete with DNS and an iMaze server - <http://eleuther.net>
- Slashdot-capable 486 with dynamic content: Counted over one million hits in just over 48 hours - <http://foureightsix.go-beyond.org> . Runs on a 40Mhz 486DX2 with 16MB of RAM

Servers

- omnisource: Main go-beyond.org server, moved a 500Mhz P3 Katamai Dell into a different case and improved the cooling. Currently runs Zenserver, but I will switch it to Icadypes when it is ready
- blackpenguin: Old Dell Pentium Pro with Slackware. My first server hosted at home, ran Slackware
- Two TB file servers: Custom built, both run Zenserver, one hosts a few Drupal sites on Lighttpd, the other uses Samba
- Mailinglist server: A dual P3 Slackware server I setup to run PHPList
- Former Icadypes development box: Custom built 1Ghz P3
- silentgnu: New Icadypes development and compiling box, completely custom with a 2.2Ghz Pentium D (was overclocked to 3.06Ghz, but I had some stability issues)
- aditi: The server that runs eleutherNet. Originally an AMD K6-2, but after having major issues with the motherboard I replaced it with the former Icadypes development box

Networking

- IPv6: All of my servers at home have IPv6 addresses and AAAA DNS records pointing to them, almost all daemons listen on an IPv6 socket. The 486 is only on IPv6 but has IPv4 requests proxied to it by my omnisource server
- Experience with setting up routing, NATing, some experience with VLANs
- IPv4
- Subnetting
- PPP, SLIP
- Concepts of TCP and UDP
- iproute2, net-tools, iptables
- WiFi

Learning

- BGP
- C

- Assembler
- DNSSEC
- GIT
- loop-aes

While I have a fairly well-rounded skill set, I feel that my biggest strength is the ability to quickly learn and know where to look for answers. It is impossible to memorize enough material to know the best solution for any scenario (especially with technology advancing so quickly), and thus I feel that knowing where to find answers is key. While I have significantly more systems administration and distribution development experience than scripting or coding, I would like to become more proficient with C, Lua, and assembler. I am a fast learner with computing concepts, so I should be able to pick up any additional needed skills quickly.

I follow the open source methodology and release all of my own work under GPL-compatible licenses. I would prefer to have any work that I do go back into the community so that it can be furthered beyond my abilities, and benefit the rest of humanity. Networking is one of my favorite areas. I like to think of how various mediums can be used for sending packets back and forth. To me, the concept of connecting people to a neutral, censorship-free realm only limited by algorithms and the medium used for connection, is just incredible. I usually enjoy every aspect to computing, except using deprecated protocols and doing grunt work that could be easily automated. I easily notice potential vulnerabilities and make speed, stability, and security top priorities in any project. I try to keep up with all recent developments and stay on top of developing technology. I am not afraid to use bleeding-edge code and try to help fix potential bugs. My IT education comes almost entirely from man pages, Google, chat rooms, documentation, and reverse engineering; I do not plan on taking any further education beyond high-school. However, I would certainly like to attend certain security conferences, and try to learn as much as I can with each opportunity. I am very understanding of other cultures and regularly communicate with people around the world.

If you are interested in possibly hiring me for contract work, please let me know. References are available upon request.