

Profile

System Administrator and **Programmer** with 19 years experience. Internet Service Provider operator and web host cluster system administrator. Team player and natural leader with strong technical focus.

Experience

SENIOR DEVELOPER

ONLINE BUDDIES INC, CAMBRIDGE, MASSACHUSETTS

2011-PRESENT

Develop and maintain the "Manhunt.net" website, Android and iOS applications, and Sencha Touch mobile web application. Highlights include:

- Led redevelopment of all browser scripts and styling into structured, class-oriented and modular JavaScript using Backbone and Require.js and modular CSS using LESS.
- Rebuilt build system, reducing build times from 10 minutes to 30 seconds.
- Recreated development infrastructure as virtual machines using Vagrant and Puppet.
- Reimplemented core search infrastructure to accommodate modern, geographic-based search, including proprietary algorithm offering an order of magnitude improvement over state of the art given the infrastructure available.
- Led conversion of source code management from Subversion and FishEye to git and GitLab.

SYSTEM ADMINISTRATOR AND PROGRAMMER

BLUMENTHALS.COM, OLEAN, NEW YORK & BRADFORD, PENNSYLVANIA

2008-2013

Responsible for Linux-based web hosting cluster and virtual server host machines, using both Xen and OpenVZ based private cloud infrastructure. I managed day to day system operations. After 2011, continued as a consultant.

- Created consumer application for managing local search listings in multiple directories using PHP and MySQL.
- Took over primary development of a PHP-based content management system used in Blumenthals.com business as their primary specialization. Feature releases have happened almost monthly, and I am responsible for deployment of updates to hundreds of separate web sites.
- Implemented secure hosting infrastructure for Java and Apache Tomcat customer portal for a regional bank.
- Install security patches within 12 hours of release.
- Built infrastructure administration tools using Perl and Ruby.
- Built Flash magazine management and display system, publishing from PDF newspaper output and ending with Flash 'Books' on the web.

DEVELOPER, SYSTEM ADMINISTRATOR AND MANAGER

THE INTERNET COMPANY, RIDGWAY, COLORADO

2003-2011

Started a small UNIX hosting shop, Internet provider and computer repair shop specializing in Ruby on Rails and other application servers before the advent of mod_passenger and Rack, node.js hosting, and python-based application servers using WSGI. Experience using OpenVZ, Linux-VServer, Xen, and Solaris Zones cloud infrastructure. Branched out into custom development, including work such as:

- Built an ERP and ledger system with Ruby and Javascript as sole developer.
- Built large-scale extensions to Wordpress in PHP as part of a team for a marketing firm.

- Made large contributions to the development of PLD Linux, a large Linux distribution, including patches and repeatable kernel builds for distribution.
- Built private certificate authority public key infrastructure.
- Created environment to run jQuery server-side for web scraping tasks.
- Developed two independent web-based aircraft parts inventory management systems in PHP.

TECHNICAL SUPPORT AND SYSTEM ADMINISTRATOR

OURAYNET, OURAY, COLORADO

2001-2002

Administered web server cluster and provided technical support to customers.

CODE MONKEY

WONDERMILL WEB WORKS, VICTORIA, BRITISH COLUMBIA

2000-2001

Created ad network statistics analysis software in PHP and MySQL, including multi-dimensional data summaries of billion-plus row datasets for marketing and advertising business.

- Helped manage MySQL for online advertising network transaction processing.
- Built data visualization software for analysis of advertising network performance.
- Mastered Nerf Weaponry and inter-cubicle warfare. Also led office fridge raiding parties and held wombats hostage.

TECHNICAL SUPPORT AND SYSTEM AND NETWORK ADMINISTRATOR

INDEPENDENCE NETWORK CORP, RIDGWAY, COLORADO

1995-2000

Managed systems for a small Internet service provider, including Solaris and Redhat Linux-based web servers, Cisco routers and terminal servers.

- Managed transition from Frame Relay based services to ATM, and from analog to digital dial-up services.
- Managed transition from Sun Solaris to DEC Alpha hardware running Linux.
- Managed a cutting-edge hundred-node wireless ISP network running 802.11 and pre-802.11 protocols.

Unorthodox Education

Entirely self-educated since fourth grade, self-taught in the "Unschooling" style. 19 years industry experience. I learned how to learn, and generally learn faster, more rigorously and more deeply than my peers.

Open Source Contribution

- Made numerous open source contributions including creating an [HTML5 parser implementation in JavaScript](#), Ruby applications including a [complete webmail system](#), and various library bindings for Ruby.
- Contributed to existing projects such as node.js, Lighttpd, ruby-DBI, ActiveRecord and PHPWiki.
- Made large contributions to the development of PLD Linux, a large Linux distribution.

Skills

APPLICATIONS

- Experience with DNS using BIND, NSD and PowerDNS, including LDAP and SQL-backed servers.
- Atlassian JIRA, Confluence and BitBucket.
- Apache stack, including Harmony, Tomcat, Catalina, and Apache HTTPD.
- Asterisk and OpenSER VoIP.
- Jabber/XMPP instant messaging using jabberd, ejabberd and Ignite Realtime.
- Citrix and Microsoft Terminal Services.
- Microsoft Exchange, including Linux front-ends for antivirus, spam filtering and firewalling.
- Email services using Postfix, Exim, Sendmail, qmail, Courier IMAP, UW-IMAP and Dovecot.

COMPLIANCE

- PCI-DSS standards compliance.
- Federal bank security standards.
- Microsoft licensing.

DATABASES

- MySQL, PostgreSQL and MS-SQL including replicated clusters.
- Lucene, Solr and Sphinx full-text indexing and PostGIS geospatial indexing.
- NoSQL databases including BerkeleyDB, MongoDB and CouchDB.

DEPLOYMENT

- System administration and application deployment scripting in Ruby, Python, Perl and Shell languages.
- Capistrano, Chef and Puppet.

DEVELOPMENT

- Literate in most programming languages.
- Node.js since 2011, including small contributions to the core. Active user of Express.
- Specialties in Ruby, PHP, Perl, Python, Shell, Javascript, C, C++ and Objective-C.
- Ruby on Rails since 2004.
- PHP since 1999.
- Java since 1999.
- jQuery, prototype.js, Backbone.js, require.js, zepto.js, Sencha Touch, jQuery UI, HTML5 and Canvas.
- Git, Subversion, Mercurial, Arch and CVS.

NETWORKS

- Deeply familiar with all Internet protocols, from layer 1 upward, including TCP, UDP, IP, IPv6, HTTP, SMTP, IMAP, RTP, RTSP, including familiarity with multicast networks and routing protocols such as IGRP and BGP. I read RFCs for fun.
- Familiar with LDAP and Kerberos, including Unix-to-ActiveDirectory integration.
- Cisco, Mikrotik, Copper Networks, Netgear and CheckPoint routers and firewalls.
- Monitoring with Nagios, Cacti, SNMP and custom scripting.
- VPNs including OpenVPN, IPSEC, L2TP and PPTP.

OPERATING SYSTEMS

- Servers using Redhat, OpenSuse, Arch, Gentoo, PLD, Ubuntu and Debian Linux distributions, as well as SmartOS, IllumOS, Solaris, FreeBSD, OpenBSD and MacOS Server.
- Workstations using Fedora, Ubuntu and OpenSuse Linux and MacOS and Windows.
- Virtualization using VMWare, Virtualbox, Parallels, OpenVZ, Linux-VServer, Xen, KVM and Solaris Zones.

SERVICES

- Experience with several cloud providers, including RackSpace, Joyent, Digital Ocean and Amazon EC2, including diagnostics and workarounds on storage latency on Amazon Elastic Block Storage.

SECURITY

- Linux security modules such as RSBAC, SMACK, SELinux and GRSecurity and least-access principles.
- Experience mitigating DoS attacks.
- Honeypots and deep packet inspection infrastructure for proactive network response to threats.
- Antivirus using Kaspersky, Norton Internet Security, Symantec Corporate Antivirus, Sophos Antivirus and AVG.

STORAGE

- Storage Area Networking (SAN) with Sun, HP and EMC equipment.
- iSCSI, ATAoE and FibreChannel.
- Cluster filesystems including Veritas, OCFS2, Ceph, GlusterFS and GFS.

References

References available on request.