

# Patrick G. Salisbury

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*A note about the layout of this document: Given the disparate requirements of people who review resumes (from HR people who are short on time and swamped with submissions, to technical interviewers who want lots of gory details), I've redesigned this document to try to satisfy both groups at once. If you are short on time, or just interested in the overview of my work history, then the Table of Contents should provide most of what you require. If you want the details, please dig in. Feedback on the usefulness of this experimental format would be most appreciated.*

A shorter version of this resume (for folks who don't need all the gory details) is available at <http://reality.sculptors.com/~salsbury/Patrick-Salsbury-resume.pdf>

## Table of Contents

Current Status

Objective

Education

State University of New York at Buffalo (SUNY Buffalo) - Independent Major

Recent Activities and Current Interests

Computer Experience

Technical Consultant - Unix Group, Taos Mountain (3/08 - 2/09)

Postmaster Team, Apple (9/08 - 1/09)

System Administrator - Unix Team, Ingenuity Systems (3/08 - 8/08)

Sabbatical / Student (4/06 - 2/08)

Senior Unix Administrator, Engineering Division - Intransa (6/05 - 3/06)

Chief \*nix Officer - Etheric Networks (8/03 - 3/05)

Sabbatical (6/01 - 8/03)

Independent Consulting Micro-Projects (11/01 - 2/02), (2/03 - 5/03)

Network Design and Engineering Consultant - Predictive Systems (5/98 - 6/01)

Senior Unix Administrator - ClariNet Communications Corp. (5/96 - 3/98)

System Administrator - The Santa Cruz Operation (SCO) (4/95 - 5/96 - Pre-Caldera ;- )

Technical Support Engineer/System Administrator - Visionware (5/93 - 4/95)

Highlights of Additional Computer Experience

Related Personal Skills

Security Experience

Operating Systems

Languages

Professional Associations

## Current Status

Actively looking for interesting jobs in and around the San Francisco Bay Area.

## **Objective**

A challenging, full-time or contract position that provides me with opportunities for learning and growth. Looking to work in a technical, Unix/Linux-based environment with very technical people. Looking for positions at the Senior System Administrator or IT Director level.

## **Education**

State University of New York at Buffalo (SUNY Buffalo) - Independent Major

B.A. in Design Science: <http://reality.sculptors.com/~salsbury/Articles/Design-Science-proposal.txt>

## **Recent Activities and Current Interests**

- \* Actively studying inorganic chemistry
- \* Taking classes in Geographic Information Systems (GIS) and Remote Sensing at Foothill College, Los Altos, CA. (See below.)
- \* Using Google Earth to better model, map, and understand our world. Especially its integration with Dynamic Data Layers to provide real-time updates from external sources.
- \* Studying (biological) virology, with an eye toward understanding it on a molecular/structural level. (Long-term interest in molecular nanotechnology.)

## **Computer Experience**

SAGE Senior Administrator: <http://www.sage.org/field/jobs-descriptions.html#Senior>

### ***Technical Consultant - Unix Group at Taos (3/08 - 2/09)***

\* A member of Taos' team of technical Unix/Linux consultants, providing system administration services to Taos customers on a contract basis.

### ***Postmaster Team at Apple (9/08 - 1/09)***

\* Worked as part of the team of Postmasters in charge of Apple's Email and Collaboration Services and Enterprise Mail Systems.

\* Projects involved work on upgrading/maintaining corporate FTP servers, user home directories, and maintaining <http://lists.apple.com/> - Consisting of ~160 mailing lists serving ~150,000 members of the Apple user community.

### ***System Administrator - Unix Team at Ingenuity Systems (3/08 - 8/08)***

\* Part of a 4 person team of dedicated Unix admins working to administrate a 200+ server Unix (Solaris and Linux) environment, including hardware, software, operating systems and host security. Also responsible for network monitoring and management using Nagios and other tools.

### ***Sabbatical / Student (4/06 - 02/08)***

\* Work on personal projects and research.

\* Fall 2006 - Spring 2007: Took classes in introductory and advanced Geographic Information Systems (GIS) at Foothill College, Los Altos, CA. Gained familiarity with several commercial GIS packages (ArcGIS, Geomedia, Idrisi). Specialized in locating, evaluating, and learning how to implement open-source GIS tools and packages (SAGA-GIS, Geoserver, various data conversion tools). Learned techniques to use GIS for analysis, mapping/cartography, and solving geospatial problems. Performed solar-input analysis and designed a 3.2 megawatt solar array that could power the entire Foothill campus with the energy that falls on one parking lot. ([http://reality.sculptors.com/gallery/view\\_album.php?set\\_albumName=Foothill-solar](http://reality.sculptors.com/gallery/view_album.php?set_albumName=Foothill-solar)) Also learned basics of remote sensing and satellite imagery/analysis, and how to integrate this with other GIS tools to analyze global issues. Strong interest in continuing GIS research.

### ***Senior Unix Administrator, Engineering Division - Intransa, Inc. (6/05 - 3/06)***

\* Senior Unix Administrator of the Engineering Division of Intransa, who make large-capacity, highly scalable network storage devices (IP SAN) using the iSCSI protocol.

\* Was responsible for infrastructure, network monitoring & management, backups, and untangling a rather messy legacy environment.

\* Supported scores of Linux servers, both in production and research networks, as well as the engineers in QA, and Development.

\* Also implemented advanced tools, procedures and new online groupware environments to improve communication and functionality, and to help users break out of the "email/spreadsheet/word-processor-only" mode of thinking and working. (Results were mixed. The tools worked, but people aren't quick to change old habits...)

Projects included:

- \* Implementing Logical Volume Management on Linux servers.
- \* Numerous upgrades to tools and Operating Systems.
- \* Implementing several network backup systems, using OpenSource and Commercial tools.
- \* Developing new skills & techniques for managing mountains of data effectively at a very large scale.

### ***Chief \*nix Officer - Etheric Networks (8/03 - 3/05)***

- \* Responsible for most aspects of IT and Technical Support (internal and customer) for a wireless broadband ISP, including technical analysis, troubleshooting, network design and architecture, and all things relating to \*nix-based servers, network- and radio-devices. This includes DNS, Sendmail (and associated anti-spam tools), User Accounts, Nagios network monitor, NagMIN, Tiki groupware intranet server & customer portal, Virtual mail and web domains for both customers and internal use, WebMIN management toolkit, system upgrades, security, and day-to-day administration.
- \* Also responsible for network management, tool evaluation, selection, implementation and in some cases, creation (via Expect and shell scripts to automate monitoring and reporting of Trango Broadband radio equipment that had no existing monitor/management tools.)
- \* Performed field work at data centers and remote tower sites for hardware installation, testing, and anything else that could not be done remotely.
- \* Trained Novice- and Junior-level admins on the IT staff in various aspects of system/network maintenance.
- \* Since April, 2004, Etheric Networks has been consistently listed as the fastest Wireless Broadband ISP in the world, and usually in the top three fastest overall broadband ISPs (considering both up and down speeds), as reported by [<http://www.broadbandreports.com/archive>||BroadbandReports.com]
- \* <ObGeek>Designed and built a solar powered ridge-top radio relay, which currently provides non-line-of-site, 4-5 megabit (symmetric) wireless broadband service to my geodesic dome-home in the redwoods. :-) Have recently expanded service to several neighbor houses on our mountainside.</ObGeek>

### ***Sabbatical (6/01 - 8/03)***

- \* My primary activities during this period centered around my own projects, aside from a few consulting jobs as outlined below.

Independent Consulting Micro-Projects (11/01 - 2/02), (2/03 - 5/03)

- \* Worked on a variety of small projects including DNS and Sendmail consulting, installation of an integrated web-based mail system (IMP), hardware build and OS installation/configuration for server-class machines, various scripting projects. Occasional sysadmin work as needed. Developed and

implemented new backup system for servers. Installation of anti-spam tools on customer mail systems. Installed/Designed databases (MySQL & Postgresql), including web access and integration with other applications. Security review/upgrade of customer CGI scripts that were being exploited by spammers.

### ***Network Design and Engineering Consultant - Predictive Systems (5/98 - 6/01)***

\* Worked on solo and team projects to address networking issues and projects for Predictive's Fortune 1000 customers. Helped design and build networks, Network Operation Centers, network monitoring and management systems, and network performance systems for ISPs, major networking equipment manufacturers, telcos and other large companies deploying and operating complex networks.

\* Worked on projects in all four of Predictive's main practice areas: Network Design and Engineering / Enterprise Network Management / Performance Management / Information Security

\* Worked with a small team to develop a performance monitoring system to monitor a network of approximately 800 machines. Co-developed a Perl suite that knitted together several commercial applications, SNMP software, a database, user interface, SAS reporting, and other aspects of the performance system. Deployed and maintained several CVS (Concurrent Versioning System) servers to maintain code-bases on multiple projects for various teams of developers working on both Windows and Unix based systems. Trained dozens of people at all technical levels in the proper use of these systems.

\* Helped to implement and deploy the Micromuse "Netcool" network monitoring software on numerous customer networks. Configured to integrate and monitor a variety of commercial network management products on Unix and NT systems, firewalls, and Internet services such as HTTP, FTP, DNS, etc. Wrote scripts to automate tasks and manage/update/synchronize distributed servers in a secure fashion. Wrote scripts to massage and extract data on an as-needed basis.

\* Assisted customers in analyzing their network topology, identifying and correcting potential problems, determining where they would like to end up, and devised solutions to help them arrive at that goal. Worked with customers to train their Operations staff on how to use the tools that were deployed by Predictive. Interfaced directly with customers and vendors. Wrote proposals for new business projects. Wrote technical documentation on deliverables to customers.

### ***Senior Unix Administrator - ClariNet Communications Corp. (5/96 - 3/98)***

\* Responsible for maintaining ClariNet systems and making sure that the 1200+ clari.\* newsgroups continued their feed of newswire services to the Internet and ClariNet's approximately two million subscribers. This was a 24/7 operation, with associated responsibilities. Trained junior staff in supporting and maintaining company functions. Helped to expand & integrate ClariNet's automated systems monitoring and paging utilities to keep the network running on an even keel, and to notify operations staff when difficulties arose requiring human intervention. Perl scripting, network and facility security checks and implementation, web maintenance. Postmaster & Newsmaster duties.

\* Responsible for helping develop and maintain ClariNet mailing lists bringing daily news flashes and

stories to tens of thousands of users. Worked with a small team. Wrote/maintained code and web pages. Developed tools to aid list management.

\* Responsible for helping all then-current and future ClariNet customer sites install/upgrade ClariNet news source hardware/software, as well as enhance their web presence and end-user experience by implementing up-to-the-minute news and photos on their websites. This was known as the ClariWeb Project. Extensive and numerous onsite visits to customer sites such as Apple Computer and Netcom to help integrate the ClariWeb software with their existing website infrastructure.

\* Trained staff in all areas of day-to-day computer & network use, as the need arose. Developed and taught internal classes on how to use Usenet/NNTP resources to help advance productivity and reduce spam in the work environment.

### ***System Administrator - The Santa Cruz Operation (SCO) (4/95 - 5/96 - Pre-Caldera ;-)***

System Administrator (4/95 - 7/95)

\* Continued to support Visionware users after SCO acquisition of Visionware and began also supporting SCO user base. Coordinated and performed move of Visionware's Menlo Park network to the Santa Cruz campus of SCO and subsequent merge into existing SCO network.

\* Assumed newsmaster role for SCO. Instrumental in revoking outdated news policies and restoring a full newsfeed for SCO user community. Coordinated upgrade of news system. (Server and newsreader programs)

Postmaster/Newsmaster/Webmaster for SCO (7/95 - 11/95)

\* Assumed role dedicated to managing and coordinating SCO's Internet Information Systems. Worked with small team to determine areas to develop/expand SCO's internal and external internet services.

Building Administrator of Product Development Center (11/95 - 5/96)

\* Worked with one other administrator to support user community in the Unix Development building. (Approx. 150 users & workstations, as well as corporate web, news, home directory, backup and development servers.) Responsible for upgrading and maintaining corporate servers, installation and upgrade of software, end-user desktops, user-training, and day-to-day operation of the center.

Special Projects

\* General Troubleshooting - SCO New Jersey (3/96)

\* Sent on a solo project to SCO's NJ office for 9 days to analyze and integrate the work environment of the Unixware business acquired from Novell. Helped configure a new TCP/IP network for approximately 100 users switching over from IPX/SPX. Responsible for installing and configuring network, email, and X-Windows software, as well as configuring the general user environment, and providing good relations to new employees during the difficult transition time.

- \* Hardware upgrade of corporate web server (4/96)

- \* Designed and configured network backup system for Product Development and Corporate Systems (5/96)

- \* Jump-started a project that had been idling for 18 months. Configured SCO's ARCserve software to implement backup schedule for ~180 desktops and servers in the Product Development building.

### ***Technical Support Engineer/System Administrator - Visionware (5/93 - 4/95)***

Technical Support Engineer/System Administrator (5/93 - 10/94)

Full-Time System Administrator/Webmaster (11/94 - 7/95)

Supported users of the Visionware PC/Unix connectivity products: PC-Connect (terminal emulator) and XVision (PC X Server). Supported most major TCP/IP software for PCs (including Microsoft, FTP, Novell, Wollongong, Sun PC-NFS, Netmanage) connecting to many different host platforms (including SunOS, Solaris, SCO, VMS, SGI, HP-UX, Altos, Xenix, Linux, and AT&T Unix). Fielded questions on all aspects of X-Windows configuration and usage, for both Visionware customers and staff.

As system administrator:

- \* Connected Visionware US Headquarters to the Internet (mid 1994)

- \* Pioneered Internet software distribution of our commercial product, while everyone else was still shipping discs in boxes. (Pre-Netscape, Yahoo, IE, Google, etc. - 1994-1995).

- \* Designed, implemented, and maintained:

- \* Network of Sun SparcStations (SunOS), Microsoft Windows for Workgroups, Windows NT, and SCO Unix machines. Scripts to automate routine tasks. Backup System for mission-critical servers. System, Network, and Internet security. FTP & WWW servers. Performed Postmaster & Webmaster duties.

- \* Integrated operations with admins of UK Headquarters to provide global connectivity between main offices, remote sales offices, and traveling staff. Networked printing and shared faxmodems between Unix and DOS-based machines, and between US and UK offices. Used the Internet rather than traditional phone lines, and slashed the former international long-distance costs between offices.

- \* Conceived and taught workshops on using the Internet to staff members coming up to speed.

### **Highlights of Additional Computer Experience**

- \* UNIX experience since 1989. On Internet since 1987.

- \* Linux user/admin since at least kernel version 1.1.13 (1994)
- \* Founded/maintain several dozen private and professional interest mailing lists:  
<http://lists.sculptors.com/mailman/listinfo>
- \* Specializing in and strong advocate of Open Source software.
- \* Technical Writings: <http://reality.sculptors.com/~salsbury/Articles/index.html#Technical>

## **Related Personal Skills**

- \* Extremely quick learner. Superb organizational, human interaction, and teaching skills. Extensive customer support experience (in person and on phone).
- \* Developed curriculum for and taught workshops at SUNY Buffalo, Visionware, SCO, ClariNet, and Predictive Systems, as well as client sites.
- \* Have trained countless friends and family in various aspects of computing and internet usage.
- \* Work extremely well with others. Very strong background in problem analysis and designing comprehensive solutions.
- \* Strong advocate of telecommuting. Willing to work hard to ensure that as many people as possible may enjoy its benefits.
- \* Comfortable and experienced with interviewing prospective hires and training junior staff.

## **Security Experience**

- \* Past positions have had security clearance at all levels in corporate environments (non-military clearances), from root passwords on critical corporate servers to keys for every room and office on campus
- \* Have performed many info- and physical-security tasks at most of my previous positions, including alarm system maintenance, password assignment, addition/removal of users, continuous monitoring and upgrade of installed software base, hardening of Unix-type systems to remove holes and provide more secure servers and configuration of firewalls. Also, migration to secure, encrypted tunneling protocols (SSH) for all machine-to-machine communications. Well-versed in encryption tools such as PGP/GPG, and their integration with mail systems. Familiar with IDS and security scanning software such as Tripwire and Nessus.

## **Operating Systems**

<b>Active</b>	<b>Duration</b>
Linux	15+ years (1994-present)
FreeBSD	8+ years (2001-present)
Microsoft Windows	16+ years (1993-present)
<b>Inactive</b>	
SunOS (Sun 4.1.x)	7 years (1989-1995)
Solaris (Sun 5.x)	11+ years (1994-2005)

## Languages

\* awk, C, Expect, HTML, LISP, Perl, procmail, Unix System Programming

Shell scripting: bash, csh, sh

Professional Associations

\* [<http://www.usenix.org/>||USENIX] / [<http://www.sage.org/>||SAGE]

\* [<http://www.foresight.org/>||Foresight Institute Fellow]

\* Comprehensive Professional Member of the [<http://www.wfs.org/>||World Future Society]

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