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*Atlanta Mail Drop - good any time*

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## **Objective**

I would like to provide Systems and Network Engineering contract services and design, develop, and implement a heterogeneous network in a large-scale environment. I look for and welcome challenges that can help me extend my knowledge and experience.

## **Software Experience**

### **Operating Systems:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Solaris 7, 8                      | <input type="checkbox"/> Windows 2000, Server, XP | <input type="checkbox"/> BSDI 0.9, 1.1      |
| <input type="checkbox"/> Solaris 2.x                       | <input type="checkbox"/> Windows 95 / 98          | <input type="checkbox"/> NetWare 3.12, 3.11 |
| <input type="checkbox"/> SunOS 4.x/Solaris 1.x             | <input type="checkbox"/> Windows NT 4.0, AS 3.5   | <input type="checkbox"/> OS/2 2.x           |
| <input type="checkbox"/> Linux (SuSE, RedHat, Debian, LFS) | <input type="checkbox"/> MSDOS 6.x, 5.0           | <input type="checkbox"/> SCO UNIX ODT       |
| <input type="checkbox"/> FreeBSD 4.5, 4.8                  | <input type="checkbox"/> MSDOS 3.x                | <input type="checkbox"/> SCO Xenix          |

### **Graphical Environments:**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> X11R6, X11R5   | <input type="checkbox"/> OpenWin 3.x, 2.0 | <input type="checkbox"/> MS Windows for Workgroups 3.x |
| <input type="checkbox"/> CDE 1.x, Motif | <input type="checkbox"/> News             | <input type="checkbox"/> MS Windows 3.x                |
| <input type="checkbox"/> KDE, GNOME     | <input type="checkbox"/> SunView          |  |

### **Networking Programs and Protocols:**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> NIS+               | <input type="checkbox"/> TCP/IP                       | <input type="checkbox"/> ReflectionX   |
| <input type="checkbox"/> NIS (Yellow Pages) | <input type="checkbox"/> Apache http/https            | <input type="checkbox"/> eXceed/W      |
| <input type="checkbox"/> NFS                | <input type="checkbox"/> ssh, scp                     | <input type="checkbox"/> PC-Xware      |
| <input type="checkbox"/> PC-NFS             | <input type="checkbox"/> dns (tinydns, BIND)          | <input type="checkbox"/> vnc, GoGlobal |
| <input type="checkbox"/> MD-NFS             | <input type="checkbox"/> CUTCP CU-TN, CU-FTP, NCSA-TN | <input type="checkbox"/> IPX           |
|   |   | <input type="checkbox"/> token ring    |

### **Other programs and tools:**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Sun Enterprise Clustering                    | <input type="checkbox"/> Mozilla, Netscape (browser, Communicator)                               | <input type="checkbox"/> ftp, ncftp, wuftp, archie, gopher             |
| <input type="checkbox"/> Solstice Disk Suite                          | <input type="checkbox"/> mutt, elm, Mail (Berkeley UNIX version), Lotus cc:Mail, Eudora, Outlook | <input type="checkbox"/> WinFax Pro (4.x, lite), Eclipse Fax, FaxWorks |
| <input type="checkbox"/> Veritas Volume Manager                       | <input type="checkbox"/> MS Access, MySQL, PostgreSQL, dBASE IV, FoxPlus                         | <input type="checkbox"/> ProComm, PC Plus [Win]                        |
| <input type="checkbox"/> Veritas NetBackup, Legato Networker          | <input type="checkbox"/> Lotus Notes (International)   | <input type="checkbox"/> VPN, PPP, SLIP, Trumpet WinSock, DOSPPP       |
| <input type="checkbox"/> Globe FlexAdmin                              |  | <input type="checkbox"/> zmodem, kermit, uucp                          |
| <input type="checkbox"/> [AMS][La]TeX, troff                          |  |  |
| <input type="checkbox"/> OpenOffice, StarOffice, WordPerfect, MS Word |  |  |

- FrameMaker, Interleaf
- MS Excel, Lotus123, sc & generic spreadsheets
- inn + rn, trn, tin
- pgp, gpg, smime, des, crypt, ssh
- WinZip, PKZIP, InfoZip, gzip, bzip2, compress, MIME, BinHEX, uuencode, uudecode
- GNU gcc/g++, Sun cc, Sun SPARCWorks

## Hardware Experience

### **Sun computers:**

- E6x00 (UltraSPARC)
- E5x00 (UltraSPARC)
- E4x00 (UltraSPARC)
- E3x00 (UltraSPARC)
- 2000E (SPARCServer)
- 1000 (SPARCServer)
- 450/250 (PCI server)
- 420/220 (PCI server)
- 2 (UltraSPARC)
- 1 (UltraSPARC)
- 60, 30 (UltraSPARC PCI desksides)
- 10, 5 (PCI desktops)
- 20 (SuperSPARC)
- 10 (SuperSPARC, Ross HyperSPARC)
- 5 (MicroSPARC)
- 4/70 (SS2)
- 4/65 (SS1+)
- 4/60 (SS1)
- 4/45 (IPX)
- 4/40 (IPC)
- 4/25 (ELC)
- 4/20 (SLC)
- 4/280
- 3/260, 3/160, 3/140, 3/60, 3/50

### **Personal computers and Intel Servers:**

- Pentium IV, III, II, Celeron
- Pentium (Pro/"686", "586" [MMX])
- 80486, 80386 (DX and SX)
- 80286 [80287] (AT)
- 8088/6 [8087] (XT)
- Compaq Proliant DL360, DL380
- Toshiba Tecra & Satellite notebooks
- IBM ThinkPad notebooks
- Compaq Presario, Armada & LTE notebooks
- Mac iMac
- Mac Titanium
- Mac classic
- Mac II, IIfx, IIsi
- Mac Duo (+ dock)

### **Network hardware:**

- FDDI & CDDI
- 1000baseT, 100baseT, 10baseT, 10base2, 10base5
- Cisco routers
- Synoptics and Cisco fiber and twisted pair hubs and switches
- Cabletron repeaters
- Cabletron transceivers
- PC bridges (286, 386)
- Artecon & BlackBox terminal servers
- Token Ring hubs & CAU/MAU

### **Other hardware:**

- MFM, IDE, SCSI, FCAL, RAID disks and arrays (10MB - 700GB) and Network Appliance and EMC subsystems (to 3T)
- AIT, DLT, 8mm, 4mm, QIC tape drives and libraries (40MB - 100GB)
- CD-R/RW, DVD
- laser / jet / dot matrix printers
- ROLM phone systems
- serial connections
- modem connections

## Programming Language Experience

### **Fluent in:**

- perl, php
- ksh, bash, sh, tcsh, csh
- awk, sed
- HTML
- DOS batch language

### **Familiar with:**

- JavaScript, Java
- TeX
- C (ANSI and Kernighan/Ritchie)
- C++
- Turbo Pascal, Pascal
- Prolog, Lisp, SQL

## Additional Training, Classes and Seminars

**Sun Microsystems:** Solaris Enterprise Clustering class, October 2000

**Sun Microsystems:** Solaris NIS+ Administration class, April 1996

**Mastering Computers:** Windows / Windows 95 / Windows NT seminar, August 1995

## Related Work Experience

### **Web-Folio, LLC**

**Position:** *CTO and Senior Programmer, January 2004 to present*

Web-Folio is a webhosting and picture handling service which enables anyone with a modicum of computer experience -- or even just a willingness to try something new -- to create and maintain a polished, professional web site featuring hundreds of pictures. The back-end gallery software is a code fork from the locations.org location scout webhosting site, where I did extensive programming for three years and continue to handle systems administration and tech support. I wrote the front-end user interface, which puts all of the back-end power in the hands of those nontechnical users, entirely from scratch and continue to add features to both ends in response to our clients' needs and our direction.

As Chief Technical Officer, I review existing practices and new hardware and software for its applicability to our practices and procedures as well as provide technical direction and support for our customers.

As Senior Programmer, I not only manage most of the coding but also manage all bugfix and feature releases to ensure code continuity and a smooth upgrade for our clients each time.

### **Independent Consultant**

**Position:** *Consultant, January 1992 to present*

I am a freelance computer consultant and web programmer well versed in systems administration, networking, database, security, programming, and productivity programs and concepts. I have experience with many operating system flavors and am intimately familiar with Solaris UNIX, Linux, and Microsoft Windows and DOS and do most of my web work in PHP and MySQL.

While not in a full-time contract I take on multiple positions; I welcome home and small office users (for whom I have done troubleshooting, installations, upgrades), larger corporations (for whom I can put in part- or full-time hours, on- and off-site, for a full-time delivery), and programming contracts (both Sys Admin and web site back-end).

### **On Site at ITT Aerospace Division**

**Position:** *Systems and Network Engineer, March 2002 to June 2002*

I successfully

- took over management of Solaris and HP-UX servers used for heavy computations, engineering design, and Windows File Services
- came up to speed in the local environment and provided a smooth transition
- provided seamless and competent support for the users, meeting their technical and mechanical needs as most appropriate to the case
- resolved two previously-unsolvable major issues while generally debugging and troubleshooting and assisting in many other areas
- developed, prototyped, and rolled out an automatically-syncing warm spare machine for a one-of-a-kind development server
- entirely overhauled the development environment
- developed and implemented a protocol and suite to allow the developers to exactly identify the tools in use for a given project, maintain control, and safely upgrade tools
- outlined a protocol for similarly determining the current operating environment
- provided a deep pool of knowledge and experience regarding procedural, technical, and architectural questions and issues

- identified numerous opportunities for streamlining, automation, and other improvement to allow the local staff to do more in less time

### **On Site at Calix Networks, Inc**

**Position:** *Systems and Network Engineer, November 2000 to July 2001*

I successfully

- served as a central expertise resource for a small IT group being overtaken by a rapidly-growing network
- brought overflowing collection of Solaris and Linux servers into an organized and supportable structure
- utilized separated infrastructure servers, service and resource monitoring through Big Brother, and terminal concentrators to ease manageability and ensure core service availability as well as proactively troubleshoot and resolve server problems
- installed and configured an infrastructure web server for both BB reporting to IT staff and the general population as well as for team and workgroup pages as requested
- rebuilt a destroyed NIS+ domain with minimal impact to the users (though Sun had written it off as a start-from-scratch case) and rolled in Linux YP authentication.
- utilized sudo to delegate privileged access with finer control
- integrated Linux infrastructure and application servers into the network with patches to the 2.2 kernel to fully utilize SMP and 4G RAM servers
- developed a backup plan for Solaris as well as Linux to fully back up systems to tape but to also back up key files to network disk, and later expanded that plan to include new Network Appliance file server direct backup software
- utilized Solaris jumpstart as well as RedHat Linux kickstart to automate and standardize system configuration
- automated patch downloading and developed a standardized patch level procedure
- configured and deployed an NTP time server to ensure network-wide millisecond accuracy as required by simulations
- configured centrally-served network printing under Solaris with support for Linux out of the box
- deployed a dedicated server for VNC to provide a persistent GUI environment available for both high- and low-bandwidth users
- managed and implemented an OS and patch upgrade program to bring all Solaris servers up to date and keep them current

- configured a secure DNS server (using djb tinydns) to replace the BIND-based MS DNS server
- recommended, piloted, and deployed the CygWin UNIX tools for Win clients to provide a full UNIX tool and compiler environment under Windows -- for free!
- installed and deployed 64-bit compilers for developers
- implemented a news server with an ATT newsgroup to provide access to both public engineering and private newsgroups
- managed data migration to a new office and tool synchronization between the two sites
- planned and implemented a file server consolidation and reorganization - - including redistribution and balancing of home directory work spaces -- for over 800G of data
- assisted the local ClearCase administrator in his migration of data from local disk to a highly-available RAID volume with room to grow
- developed server hard drive mirroring procedures to improve server availability
- performed system profiling and expansion analysis to plan for future growth
- wrote, deployed, and supported a load-balancing front-end script to allow batch submission of hardware simulations while ensuring that licenses are available for the run
- improved efficiency through extensive scripting and automation of nearly everything I touched, with constant staff training as well as scripts, examples, procedure documentation, and tips prepared for future employees provided

### **On Site at Pfizer, Inc**

**Position:** *Systems and Network Engineer, June 2000 to September 2000*

I successfully

- managed and oversaw the configuration and deployment of a Sun Enterprise server connected to 3 TB of highly-available EMC disk for two enterprise-wide applications
- provided specific skills training for the two Systems Administrators doing the type and level of work I had (singlehandedly!) done during my previous assignment
- offered a fresh and more objective overview of the projects before the UNIX team
- debugged a Windows+NFS problem that had been considered unsolvable for nearly a year

- implemented bugfixes and enhancements to the common user environment providing all functionality needed for user work
- provided general expertise for the UNIX team and for other IT specialists

### **Sabbatical**

*September 1999 to June 2000*

I took nearly a year off to focus on self and family and welcomed a second daughter to our household. During this time, I continued to work with perl and Linux both at home and on my web server, and brushed up a number of skills while enjoying a relaxing "recharge" period.

### **On Site at Pfizer, Inc**

**Position:** *Systems and Network Engineer, November 1997 to September 1999*

I successfully

- provided skilled expertise and knowledge transfer for day-to-day issues.
- coordinated teamwork across different organizational heirarchies.
- combined teams performing the same functions unaware of each other.
- enhanced communication and interoperation for the benefit of the end users.
- automated both high-level and low-level tasks.
- configured the JumpStart server to work in multiple subnets of multiple networks -- something that Sun said cannot be done but which they are now, in part because of this work, able to configure
- developed OS and package standards for large and small servers and desktop workstations.
- developed and deployed a standard system configuration and layout.
- developed and provided a standard and stable environment containing all of the necessary tools for all users, on both desktops and central servers.
- encapsulated locally-developed and third-party utilities in an installable package format and automated their installation under jumpstart.
- worked with Sun support to automate the download of recommended and y2k patch collections for all versions of the OS in use at the facility.
- worked with Sun support to automate system data collection for regular prophylactic review as well as to facilitate and speed troubleshooting.

### **On Site at Raytheon Company**

**Position:** *Systems and Network Engineer, August 1997 to October 1997*

I successfully

- managed a multi-site, enterprise level migration from SunOS to Solaris.
- planned, developed, documented, implemented, and reported all phases of the migration.
- provided OS, tool, tuning, scripting, configuration, and application expertise.
- automated general processes with JumpStart and shell scripts.
- configured, tuned, and patched Solaris 2.5.1 for use with Raytheon applications.
- installed appropriate security patches and tightened down loose holes.
- developed and deployed a general user environment, providing a uniform and easy-to-support configuration while allowing maximum user customization.
- configured CDE and added Raytheon customizations while retaining backward capability for legacy installations.
- trained and educated local personnel so that they would be aware of and could download future patches.
- received, answered and solved all varieties of general, specific, everyday and unique questions, problems, requests and educational needs.

### **On Site at Motorola/IRIDIUM**

**Position:** *Senior System Administrator, October 1995 to March 1997*

I successfully

- maintained, configured, installed, upgraded, repaired and archived all network and standalone server, computer, and printer hardware, software and data in multiple labs.
- managed servers in multiple NIS+ and NIS domains and integrated the two services to simplify adding and deleting entries in multiple domains.
- implemented a new NIS+ namespace, with full NIS+ security, and migrated all clients and servers from the old namespace while both namespaces were in production use.
- improved efficiency and reduced errors by writing numerous scripts to automate daily SysAdmin tasks, used JumpStart to automate OS installations, and wrote custom scripts for individual and group requirements.
- developed and implemented a complete disaster recovery plan for multiple servers.
- designed, wrote and managed backup schemes and scripts for multiple servers on single tape drives and a small stacker while waiting for the purchase of larger, more intelligent stackers.



- designed, wrote and managed backup schemes and scripts for multiple servers on intelligent stackers while waiting for the licensing of advanced backup software.
- configured and implemented an automated, gui-driven, rotating backup, with off-site storage, of over 300GB of OS, home, project, and tool directories on multiple servers and workstations.
- planned, managed and implemented the reallocation and transfer of over 30GB of home directory data such that it was transparent to the users.
- assisted in a complete network redesign, subnet split, and upgrade; organized and trimmed the hosts map.
- organized and trimmed automount maps and developed clear disk layout schemes to simplify and standardize home, project, and tool directory assignment.
- implemented OS and tool version control to provide known environment for any software build level.
- designed "turnkey" installation and configuration procedures for new hardware and software as well as updates of user information.
- coordinated the efforts of the SysAdmin team to provide coordinated user support.
- managed a Motorola Total Customer Satisfaction team.
- educated users and staff and participated in user training.
- received, answered and solved all varieties of general, specific, everyday and unique user questions, problems, requests and educational needs.

## **SAP America**

**Position:** *System and Network Administrator, August 1994 to October 1995*

I successfully

- maintained, configured, installed, upgraded, repaired and archived all network and standalone server, computer, and printer hardware, software and data on multiple floors.
- maintained, updated and archived the phone system hardware and database.
- tracked and controlled inventory of all computer hardware and software.
- maintained, installed, upgraded, repaired and archived all demonstration, presentation and training facilities.
- planned and managed the procurement of computers and peripherals and their deployment to twenty to forty new employees per month.
- evaluated new software and integrated it into the software template.
- improved efficiency by automating recurring tasks and writing custom software.

- designed "turnkey" installation and configuration procedures for new hardware and user information.
- educated users and staff and participated in user training.
- received, answered and solved all general, specific, everyday and unique user questions, problems, requests and educational needs.

### **Vector International Corporation**

**Position:** *Network Administrator and Customer Support Engineer, March 1994 to August 1994*

As Network Administrator, I successfully

- organized a hodgepodge of standalone machines into an efficient network using NFS and both thin coax and UTP Ethernet. Further plans included using NIS and centralizing resources.
- wrote and procured free third-party software for UNIX and DOS machines.
- improved efficiency and use of resources through third-party software and automation of recurring tasks.
- put the company on the Internet, with plans for system and network growth in the short and long term future.
- worked closely with the Australian office to maximize Internet usage for both convenience and file transfer cost savings.
- educated in-house staff and customers with system use guidelines and UNIX instruction.
- installed and configured demonstration and training machines and software.
- participated in staff and customer training, including developing plans to lead future training seminars.
- researched and recommended system and peripheral purchases for both company and customers.

As Customer Support Engineer, I successfully

- configured modems and computers for uucp file transfer and remote login.
- designed and configured networks from the ground up.
- used and evaluated several X servers and window managers for UNIX machines, DOS/Windows machines, and Macintoshes.
- installed and configured third party software such as Autosketch, Lotus 1-2-3 and dBASE IV and FoxPlus.

- managed multiple customers' different needs, tracked and dealt with configuration and design problems, and managed deadlines efficiently.
- provided Quality Assurance testing and debugging skills.
- designed databases and interfaces for bug tracking, fault reporting, billing and serial number tracking.
- developed and implemented simple "turnkey" procedures for installation, configuration and expansion of company and customer upgrades and new machines.

### **University of Georgia Statistics Department**

**Position:** *System and Network Lab Administrator, September 1993 to April 1994*

I successfully

- designed, built and troubleshot a multi-segmented thin coax Ethernet network to serve two computer-aided classrooms.
- configured over 60 diskless 386 clients for Novell networking on this network.
- implemented a packet driver network and supported multiple networking protocols through each client's single network interface card.
- installed a filtering bridge to eliminate unwanted outside network traffic and increase network reliability and throughput.
- provided TCP/IP support on the network as well as programs for connectivity and designed a TCP/IP incoming connection platform to allow remote access to the lab from nearly anywhere in the world [was in purchasing stage at the time of my departure].
- wrote software to facilitate student and staff use of the lab and added application software to increase lab productivity.
- created, managed, and deleted over 900 student and 50 faculty and staff user accounts each quarter.
- developed an in-house maintenance program to cut overhead.
- designed both permanent [to have been implemented when funding permitted] and interim backup schemes, and installed such safeguards as continuous virus protection, to archive and protect system and user data.
- designed and implemented a simple, clear and visible lab organization scheme.

### **University of Georgia Statistics Dept**

**Position:** *System Support Staff, March 1989 to June 1993*

### **University of Georgia Mathematics Dept**

**Position:** *System Support Staff, April 1992 to April 1993*

I successfully

- configured, installed, upgraded, protected, repaired and archived the hardware, software and user data of over twenty-five Sun workstations of different models in both departments. These workstations were connected to and used a heterogeneous, multi-segment Ethernet network interconnected with repeaters as well as bridges.
- increased department productivity by designing, installing and upgrading the department network with other members of my team.
- kept over thirty AT clones, fifteen 386s, one MacIIfx and fifty Macintosh computers healthy and communicating with the Sun workstations.
- implemented networking programs and protocols on UNIX, DOS and Macintosh platforms to allow otherwise incompatible machines to communicate.
- developed user-level interfaces to smooth the use of DOS and UNIX, managed student, faculty, staff and guest accounts, and wrote software in C, sh/csh, and awk for daily tasks.
- administered the Statistics department computing budget.
- researched and contracted for purchase of new systems, peripherals and components as well as repairs for old systems. This research provided between \$10000 and \$15000 savings in fiscal 1992 alone.
- provided UNIX and DOS help and support at the department Help Desks and on an individual basis. This increased the productivity of students, faculty, graduates and staff of both departments.

**Education**

University of Georgia, Athens, Georgia  
Degree: Bachelor of Science  
Major: Computer Science (Systems Administration)  
Graduation: June, 1993

Lakeview Academy, Gainesville, Georgia  
Degree: High School Diploma  
Course of Study: Honors College Prep  
Graduation: June, 1986

This file is

<http://www.justpickone.org/davidtg/Resume/res-det.html>.

References available at

<http://www.justpickone.org/davidtg/Resume/res-ref.html>.

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