

Daniel Ellis Singer

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OBJECTIVE UNIX Systems Administration/Software Development

OPERATING SYSTEMS UNIX (Berkeley & AT&T derivatives), BBN O/S, PRIMOS

UNIX UTILITIES Shells (Bourne, Csh, Tcsh, Korn, SysV), Make, AWK, Troff, Curses, Terminfo, Sendmail, SCCS, etc.

LANGUAGES C, Pascal, Basic, HPGL, Assembly

HARDWARE Sun SPARC, DEC VAX, DECstation, DEC PDP-11, AT&T 3B2, PC's, BBN C/70, Prime, X-Terminals, Terminal Servers, Network Hubs, PostScript Printers, HP Plotters, HP Laser Printers, HP Film Recorder, Houston Instruments Digitizer Pad, etc.

NETWORKS 10BaseTX, 10BaseT, 10Base2, TCP/IP

EDUCATION B.S. Computer Science, University of New Orleans, 1983
B.A. Philosophy, University of New Orleans, 1979

EXPERIENCE

1/95 to Current

Duke University, Department of Computer Science, Durham, N.C.
UNIX Systems Administration, System Configuration, Shell and C Programming

Performed many systems administration duties (SunOS 4.1.x, SunOS 5.x).
Participated in design and implementation of major computer, network, and software reconfigurations.
Installed, configured, and upgraded operating systems.
Set up and partitioned disk drives.
Design and implementation of shell based user account tracking system.
Major enhancements to shell based backup system.
Installed and configured third party software packages (e.g., Matlab, majordomo).
Installed and configured open source software packages (e.g., Apache, LPRng).
Configured terminal servers, modems, printers.
Major enhancements to C program for acceleration of tape reads and writes.
Created hierarchical text and web based sys. admin. documentation system.
Wrote text and web based user documentation.
Assisted and instructed users.

8/91 to 1/95

Duke University Medical Center, Center for the Study of Aging and Human Development, Durham, N.C.
UNIX Systems Administration, System Configuration, Shell and C Programming

Performed all systems administration duties (4.3BSD, SunOS 4.1).
Designed and implemented major computer, network, and software reconfiguration.
Installed, configured, and upgraded operating systems (SunOS 4.1).
Repartitioned disk drives.
Designed and implemented comprehensive backup system.
Installed and configured third party software packages (SAS, WP, etc.).

Installed system security enhancements (TCP-Wrappers, Crack, etc.).
Configured terminal servers, modems, printers, X-terminals.
Ported applications from VAX/BSD to SPARC/SunOS.
Wrote and enhanced C programs.
Programmed shell scripts to automate administrative duties (e.g., new accounts) and common user needs (e.g., printing), and to serve as front ends to third party software (e.g., Medline, WordPerfect).
Wrote user documentation.
Assisted and instructed users.

3/90 to 7/90 (Contract)

PhaseII Software Corp., Cambridge, Mass.
Office Automation Software Enhancements and Maintenance

UNIX Sys.V, C Programming, Shell, Ksh, SCCS.
Implemented enhancements and bug fixes to PRELUDE office automation software package pursuant to AT&T/AFCAC/SMSCRC contract. Included work on Spreadsheet, Word Processor, Database, Project Manager, graphics filters, etc.

10/89 to 3/90 (Contract)

Digital Equipment Corp. (DEC), ULTRIX Engineering Group, Nashua, N.H.
ULTRIX X/Open & POSIX Standards Conformance

ULTRIX, Programming, Data Management/Analysis, Systems Administration, VSX Testing.
Administered VAX and MIPS based systems for standards conformance work. Wrote programs (Shell, AWK) and set up system for management, analysis, and reporting of voluminous VSX test suite data. Cyclicly installed operating systems and software patches, ran VSX test suite, produced reports, diagnosed errors. Documented all procedures.

5/89 to 10/89 (Contract)

PRIME Computer, RAS Group, Framingham, Mass.
Diagnostic Tool Box (DTB)

C Programming, Run-time Dynamic Libraries, Terminfo, PRIMOS, CPL, User Interface.
Worked in a small team to produce menu-driven system diagnostics package for Prime field service personnel, to increase diagnostic efficiency and accuracy. Provides consistent user interface to system utilities, tables, logs; analysis, statistics, on-line help, trouble-shooting tips.

10/88 to 2/89 (Contract)

Bolt Beranek and Newman Communications Corp. (BBN), SQA Group, Cambridge, Mass.
Periodic Software Updates Installation Utility

C Programming, BBN O/S (UNIX), Shell, Make, Libraries, Termcap, Nroff, User Interface, Device Control, Documentation.
Wrote C program on BBN O/S to selectively install software patches from magtapes onto active commercial and government network control computers (including those which operate ARPANET and MILNET). Program is menu driven with multi-level patch selection, monitored down-loading and installing. Program maintains log file, produces history reports, performs automatic paging of all screen output (using Termcap); complete diagnostics, signal handling, tape control, on-line help. 34 code modules, 7800+ lines, shell scripts, Makefile, 43 page user manual (nroff).

9/83 to 7/88

Louisiana State University Eye Center, New Orleans, La.
Computer Specialist

UNIX/C software design, programming, and maintenance.
Extensive use of C, Shells (Bourne, C), and many UNIX utilities.
Designed and wrote user applications, system utilities, and function libraries with programming emphasis on modularity and maintainability.
Administered multi-user UNIX systems on DEC VAX and DEC PDP/11 computers.

Major projects:

- Text Slide System -- software to produce slides on HP 7510A Film Recorder.
- Inode Table Modification -- direct modification of UNIX filesystem table.
- Shape Fill Library -- graphics library for filling complex shapes on plotter-type devices.
- Shape Recognition Library -- graphics library that detects complex shapes and produces outline data.
- Automated Backup System -- Designed and coded full featured system for backing up filesystems to tape.
- Laser Printer Text Program -- Wrote front end for printing to an HP LaserJet+.
- Laser Printer Font Management Library -- Wrote function library for managing fonts on an HP LaserJet+.
- Screen/Menu Management Library -- Wrote function library for management of menus and entry screens.
- Plotter Control -- major enhancements to program for control of HP7475A and HP7550A Plotters.
- Hershey Calendar Program -- Wrote calendar program using hershey fonts to plotter.
- Hershey Text Program -- Wrote function library for interpretation and use of hershey fonts.
- Database Management, Report Generation -- Wrote programs for database management and report generation, was used to administer a multi-national conference.
- Mailing Labels, Slide Labels -- Wrote programs for label database management and printing.

12/81 to 6/83

VanGeffen Computer Services, New Orleans, La.
Developed and enhanced business accounting software on IBM S/23 and IBM 5120 computers.

PUBLICATIONS

- "Toolman's Approach to Documenting UNIX Directories," *Login Magazine*, June 1997
- "Toolman Visualizes Disk Usage," *Login Magazine*, August 1997
- "Toolman Edits Pipes -- Interactively!," *Login Magazine*, October 1997
- "Toolman Meets PatchReport," *Login Magazine*, December 1997
- "Toolman: Upcoming Tools; Analyzing Paths," *Login Magazine*, February 1998
- "Toolman Features Steve Kinzler," *Login Magazine*, April 1998
- "Toolman: Sorting and Archiving Email," *Login Magazine*, August 1998
- "Toolman: Generating Web Pages with *sh* and *make*, Part 1," *Login Magazine*, December 1998
- "Toolman: Generating Web Pages with *sh* and *make*, Part 2," *Login Magazine*, February 1999
- "Toolman: Revision Control Revisited," *Login Magazine*, October 1999
- "Toolman: Meet Ed Q.," *Login Magazine*, August 2000

MEMBERSHIPS

- USENIX/SAGE
- NC*SA (North Carolina System Administrators)
11/98-11/00, Steering Committee member, Program Coordinator