

Corey Satten
Seattle, Washington
<http://corey.homepage.googlepages.com>
corey.homepage@gmail.com

OBJECTIVE:

An interesting and challenging software engineering position in a collegial environment with talented people, where I can contribute my experience and expertise to design and implement projects in which I can take pride.

QUALIFICATIONS:

36 years experience with software and hardware design, maintenance, customization; demonstrated productivity with C, SHELL, AWK, SED, PERL, POSTSCRIPT, LEX, YACC, HTML, CGI, TCP/IP, TROFF, TCL, EXPECT, PL/1, ASSEMBLY (8080, Z80, 8051, 6301, 68000), BASIC, FORTRAN, GNUPLOT and others; experience with numerous operating systems including UNIX (BSD, SYSTEM V, ULTRIX, LINUX, DIGITAL, SUN, AIX, HPUX, NeXT), MULTICS, VMS, MSDOS, WINDOWS and others of little current relevance. I was a pioneer both in home computing (1978) and in home Unix computing (1985). I work well both on a team and on my own. I have a special talent for molding existing tools into effective solutions for new problems, which among other things, makes me an outstanding shell script writer.

EDUCATIONAL BACKGROUND:

MS Computer Science, Thesis topic: "The Design and Implementation of a Compilable Systems Programming Language", U.C.L.A. 1981.

BS Electrical Engineering, U.C.L.A. 1976. Graduated Summa Cum Laude, Phi Beta Kappa.

PUBLICATIONS & AWARDS:

Fluke Key Contributor, ("*golden handcuffs*") stock award, 1986.

EDN Magazine, June 26, 1986, "Programming Single Chip Microprocessors in C", p. 213–222.

U.W., July 1989, "A Brief Introduction to Unix (*With Emphasis on the Unix Philosophy and How to Apply it to Do Your Work*)" — see my webpage.

OCCUPATIONAL BACKGROUND:

Principal Software Engineer, Networks and Distributed Computing, U. of Washington

1988-2008

Contributed technical and strategic expertise to Unix, Networking and Security projects.

- Developed and published state-of-the-art packet-capture software achieving lossless remote gigabit packet capture to disk with unmodified Linux on commodity hardware. See: <http://staff.washington.edu/corey/gulp/>.
- Conceived, designed, implemented, documented, enhanced, promoted and supported the "NDC Logical Firewall", all its variations and its associated firewall rule generator. See: <http://staff.washington.edu/corey/fw/>.
- Leveraging the Display-PostScript system in NeXT computers, designed and implemented the campus email-to-fax gateway (in production since 1993) using a mix of shell, perl and PostScript. Multiple MIME attachments of PostScript, PDF, image, and text are supported. Mail to faxhelp@cac.washington.edu for details.
- Analyzed numerous security and performance problems, developed and documented kernel and application fixes and workarounds. Patched Unix kernel binaries when source was unavailable.
- Implemented production shell/perl script solutions to problems ranging from automatic IP address assignment (before DHCP), to medium size in-house databases, to centralized password and dialup management, to high-volume email auto-responders, to network monitoring and debugging tools, to automatic data gathering and web graphing, to RedHat Linux patch management, to interactive consulting/support.
- Helped design, implement, document and debug our distributed cluster-computing environment. Found and fixed memory management, security and networking bugs in the Ultrix kernel and other key programs. Small clusters of tuned (early 90s) Unix workstations supported over 1000 timesharing PC and X-terminal users.
- Added Kerberos-5 encryption and authentication to Teraterm (1999) by implementing a Win32 extension DLL (which coexists with the existing ssh extension despite Teraterm's claim that wouldn't be possible).
- Developed tools and techniques to monitor and diagnose network vs. host delays.
- Gave thorough technical interviews to candidates for a wide range of positions in and outside our group.
- Discovered fax machines make surprisingly good grayscale scanners. Implemented a departmental scan-by-fax service. Images appear on the web as 100dpi JPEG and 200 dpi PostScript and TIFF via my 25-line shell-script web server. See <http://faxscan.cac.washington.edu> (on campus only).

Principal Software Engineer, Networks and Distributed Computing, U. of Washington (Continued)

- Implemented the campus dialup authentication, quota, and usage tracking system. 65,000 accounts see over 500,000 sessions/week. System includes web interface to graphs, and search features.
- Tracked down and arrested a computer hacker (in 1990) before that was commonplace.
- Enhanced tcpdump to interoperate with sniffer files. Provided convenient continuous circular buffered network monitoring from any suitable Unix.
- Provided aggressive feedback to vendors and implementers of key technologies. Was very active with NeXT when they were new. Worked with CERT to coordinate closing of NeXT security loopholes.
- As always, wrote/enhanced and or searched out software tools and provided insight and advice to others.

Staff Engineer – head of the "Software Technology Group", John Fluke Mfg. Co. 1983-1988

Supported the UNIX programming environment at Fluke:

- Provided, maintained and installed numerous tools and utilities;
- Designed and quickly implemented production quality C compilers for single chip microprocessors with PCC2 & Unix tools;
- Wrote software to use CAD data to automate circuit-board testing;
- Wrote software to simplify typesetting in several domains;
- Provided in-house expert consulting service;
- Researched state-of-the-art software and programming environments;
- Supervised and directed less-senior group members.

Principal Software Engineer: VANDATA Co. – Seattle, WA. 1982-1983

Maintained, enhanced, and ported VANDATA's (Whitesmiths based) Z-80 C cross-compiler on UNIX (68000, Z8000, VAX, PDP-11) VMS, RSTS, and CP/M; fixed 50+ compiler bugs; substantially improved the generated code quality; added a Z-80 translator to the assembler; added semi-automatic overlay/bankswitching capability to the linker and built numerous software tools including a portable regular expression based stream editor for peephole optimization.

Research Assistant and Principal Programmer: U.C.L.A. Computer Science Department. 1976-1981

Worked on my thesis; developed software tools & maintained the microcomputer research lab. Projects include work on 2 language interpreters: Gamma & Delta; design & implementation of dial-up with data compression facilities using intelligent terminals supported by Unix terminal driver enhancement.

Senior Engineering Aid: U.C.L.A. Computer Science Department. 1972-1976

Helped design, fabricate, test, and program early 8008 and 8080 microcomputer systems.

NOTEWORTHY AUXILIARY EMPLOYMENT/PROJECTS:

Board Member: Phinney Ridge Community Council 1991-present

Implemented a dial-out voice-messaging system for neighborhood informational outreach, and data analysis software such as fuzzy matching (in perl) for license-plate-based automobile traffic analysis.

Expert Witness for FBI and U.S. Attorney's Office 2001

Analyzed computer programs and data seized in an internet crime investigation for use as evidence in court.

Associate: Okapi Systems 1985-1988

With Fluke's blessing (and after hours), polished my 8051 and 6301 C compilers into commercial products and marketed them. Customers were satisfied but, alas, not plentiful.

Expert Witness: Bally Midway Co. 1982

A professor and I provided expert evidence and testimony in a copyright infringement case involving the PACMAN and other video games. This job required both hardware and software expertise, and construction.

Consultant: Hughes Aircraft Research Labs. 1981

Debugged and ported VLSI FORTRAN programs on VAX/VMS.

Part time programmer: Online Distributed Processing, Inc. 1979

Debugged (in person or by phone) systems level programs for a distributed processor hotel reservation system and designed/implemented an important utility for that system.