Michael C. Richardson

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Résumé

Education

- Combined Honours program in Physics and Computer Science at Carleton University.
- Personal emphasis placed on electronic data acquistion and simulation.
- Honours project in physics: *Classical simulation of a flux tube model* dealt with a molecular dynamics simulation of a system of quarks.
- Computer skills are almost completely self taught.
- Courses include: elementary and introductory quantum mechanics, introductory particle physics, large project management, object oriented design (2 years), microprocessor interfacing, algorithms, computability, and numerical analysis.

Computer Experience And Skills

Sandelman Software Works — *October 1996 to present*

Formed ¡A HREF="http://www.sandelman.ottawa.on.ca/SSW/"¿Sandelman Software Works¡/A¿ as a contract programming and internet security consulting firm. Recent projects include: corporate security policy creation, network design and architecture, firewall evaluation, securing web servers, secure database replication, Virtual Private Network design, project management, Unix systems management, and cryptographic programming.

Milkyway Networks — *October 1994 to October 1996*

Manager, System Software, responsible for multiplatform development environment, project schedule, functional specification and assignment of work. Majority of Unix kernel work. C/CVS/Perl under Unix (BSDI/386 and SunOS). Maintenance of ongoing product. Porting to SVR4. Liason to IETF, advanced product research: IPsec, Kerberos, customization. Some VxWorks and ObjecTime.

Bell Northern Research (contract) — *May 1994 to September 1994*

Work group adminstrator in FiberWorld Products division. Internal telephone support for computing environment including day-to-day system management, and problem resolution. 1000+ user population on heterogeneous Unix networks (NCD,Sun,HP,Apollo,Mac).

Achilles Networking (parttime) — *June 1994 onwards*

System administrator in startup internet services company. Set up and support for email (DNS, SMTP, UUCP, etc..) and news (INN: NNTP and UUCP). Security auditing.

Conservation Ecology (Carleton University, Dept. of Biology) — *August 1993 to March 1994*

Publisher and technical support for a new electronic journal: *Conservation Ecology: a peer reviewed journal.* Experience with World-Wide-Web (NCSA Mosaic), gopher, anonymous ftp and email servers. See http://journal.biology.carleton.ca.

Carp Systems International (now Enterprise Planning Systems) — *May 1992 to December 1992*

Full time Unix network administrator responsable for smooth operation of a dozen Unix hosts (RS/6000 running AIX, HP running HP-UX, SVR4, SCO and Windows on 386, X terminals, Macintosh, others) in an R&D environment of 30+ people. Numerous upgrades and enhancements performed including portions of a platform independant environment for source and binaries.

Fountain Technical Services — *February '89 to summer 1991*

This job entailed many day to day elements of system administration and system configuration combined with evaluation of various hardware and software products prior to installation at customer sites. Configuration and change management tools were created and prototyped in a variety of languages and environments including: Foxbase, Prolog, Smalltalk.

Cadence (né SDA Systems) — *1986-1987 and summer 1991*

- Use of Sun 4 based VLSI design tools including Tangate's Cell-3C, Cadence Framework (Edge) versions 2 - 4.0.
- Experience writting high level user interfaces in the LISP/C-like language Skill, and writing of analytical geometry programs in C within a large CAD database environment.

Personal Research and Exploration

- Several years of postmaster experience. Current technical and administrative postmaster for the Ottawa Carleton Unix group domain park (`ocunix.on.ca`).
- Thorough knowledge of Unix mailer configuration (including *sendmail, smail 2.x, mmdf*), and protocols involved (*SMTP, UUCP-g, DNS*).
- Ported PC-XINU from 8086 real mode to 80386 protected mode as a term project for operating systems course (fall 1991). Project involved writing DOS extender, cross compiling on Unix host, linking under DOS, and writing 80386 assembly language drivers to access AT class hardware. Internals of PC-XINU completely dissected.
- Currently working with the Jolitz's port of BSD 4.3 to 386. Porting BSD 4.4 (NetBSD) to sun3 (68020) architecture: working on ethernet driver. Previously adapted ethernet driver for NetBSD-i386 for National Semiconductor board.
- First prize winner in Senior Computer Science category of the Glebe and Ottawa Regional science fairs, with participation in Canada-Wide Science Fair, in Saint John's, NFLD in May 1989. The project was a primitive LISP interpreter in C with an virtual memory friendly (real time) incremental garbage collector. Virtual machine simulation was implemented in LISP, and a second generation meta-LISP interpreter was written for the virtual machine in continuation-passing LISP code.
- Original design, redesign, enhancement and maintenance of a FidoNet file transfer protocol suite for the Amiga named Welmat. Program is now a popular freely distributable Amiga networking program for the Amiga which is maintained in part by many individuals.

Interpersonal Skills

- Good communication skills, able to put complex ideas into simpler terms.
- Teaching assistent for first year physics courses (1991-1992), lab consultant for carleton Computing services (1992-1993), TA microprocessor interfacing (1994), BNR helpline (1994)
- Independent thinker - ability to initiate own projects.
- Experience as project leader, including delegation and critical scheduling.

Entrepreneurial Experience

- Founding member of SympCon – technical conference registration and electronic paper distribution company
- Junior Achievement of Ottawa Carleton - 1986-1988
- JA conference: EPJAC '88, CANJAC '88

Personal Interests

- flute, amateur drama
- x-country skiing/running, sailing, triathlons
- debating, amateur student journalism, Charlatan Board of directors (Carleton 91-93).
- community networking (*National Capital Freenet* volunteer)

References available upon request.