

John F. Carr

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Summary Software engineer with 20 years experience, primarily in system-level and network programming, looking for interesting development position involving new technologies or environments.

Experience AXIS SEMICONDUCTOR Boxborough, MA
2010-2013

Worked at startup making a signal processing chip, mostly on the compiler.

INTEL Nashua, NH
2009-2010

Software engineer, Performance and Threading group. Joined via acquisition of Cilk Arts to work on integration of Cilk technology into Intel products.

CILK ARTS, INC. Burlington, MA
2008-2009

Software engineer. Worked on Cilk++, a parallel extension to C++. Tasks included language design; coding in C++, C, assembly language, and DWARF byte code; parser and code generation for parallel constructs; runtime support; exception handling; application porting; and debugging. Extensively modified gcc to support parallelism.

NEXTHOP TECHNOLOGIES / LEGRA SYSTEMS Acton, MA
2003-2007

Principal Software Engineer. Designed and implemented software for a variety of features of a wireless ethernet (802.11) product including access points and a centralized control and management system. Used C++ on Linux and C on VxWorks. Implemented 802.11 management protocol and 802.1x and WPA authentication. (NextHop acquired the software intellectual property of Legra in 2004.)

SIGHTPATH/CISCO Waltham, MA
1999-2002

Senior Software Engineer. Worked on many parts of a web content delivery network, including design and implementation of DNS-based web server selection. Used Java and C++. Co-author: *The Measured Performance of Content Distribution Networks*, Proceedings of the 5th International Web Caching and Content Delivery Workshop. (Cisco bought SightPath in May, 2000.)

COMPAQ Nashua, NH
1998-1999

Contractor. Worked on NFS and cluster filesystems for DEC OSF/1 (aka Digital UNIX (aka Compaq Tru64 UNIX)), and related daemons and RPC library code.

CONLEY/EMC Cambridge, MA
1998

Wrote a RAID device driver for Reliant UNIX and assisted with a driver for Digital UNIX. The driver did failover and load sharing among multiple SCSI or fibre channel paths to a large storage array. EMC bought Conley in August 1998.

RATIONAL SOFTWARE Lexington, MA
1997–1998

Contractor. Worked on ClearCase for IRIX, SINIX, AIX, SunOS 4, Unixware, and MP-RAS. Porting, optimization, and bug fixes, including the kernel filesystem, support libraries, and some GUI debugging.

POLAROID MEDICAL IMAGING SYSTEMS Newton, MA
1995–1997

Contractor. Designed, implemented, and tested network printing software for Polaroid's medical printers. Wrote a device driver and image processing code for a PCI card used in the printer. Worked on realtime system control code. Programmed using C++, C, and Scheme on SPARCstations and PCs running Solaris; and in assembly for Motorola 56000 DSPs.

DIGITAL EQUIPMENT CORPORATION Westford, MA
1992

Consultant. Developed software for DEC's VXT 2000 X terminals, on Ultrix and VMS systems. Work included X server internals, Ultrix drivers, and secure X software.

MIT INFORMATION SYSTEMS Cambridge, MA
1989–1994

Computer programmer for MIT Project Athena and Information Systems. Systems and applications programming and porting on networked UNIX systems.

MIT PROJECT ATHENA Cambridge, MA
1988–1989

User consultant. Helped users of MIT's Athena computer system.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
1988–1989

Computer programmer. Wrote a demonstration program for networked, computer aided negotiations using the C programming language and the X Window System.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
1987

Worked in an astronomy lab. Designed and built software and hardware for interfacing a camera to a UNIX workstation.

IBM Houston, TX
1986

Computer programmer. Worked on the design of a computerized airline reservation system running on IBM mainframes.

Selected Skills Languages: Many; strongest in OCaml, C/C++, and assembly; have used Java, Scheme, and others.
Multithreading at user and kernel level.
Low level networking, from link level packets and device drivers up through TCP.
Compiler internals, mostly gcc.

Education MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
1985-1988, 1992
Department of Earth, Atmospheric, and Planetary Science.