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## **Education:**

6/1981 - 5/1986, 6/1988 - 8/1989

Bachelors in Computer Science with minor in Math at Florida State University, graduated 8/1989.

8/1989 - 12/1997, 5/2000-12/2000

Masters in Computer Science (Computer Network and System Administration Track) at Florida State University, graduated 12/2000.

Masters project: *FSU Computer Science Internet Teaching Lab* <http://www.cs.fsu.edu/~curci/itl>.

## **Professional Memberships:**

- ACM (Association for Computing Machinery)
- IEEE Computer Society (Institute of Electrical and Electronics Engineers)
- USENIX (Advanced Computing Systems Professional Association)
- MAA (Mathematical Association of America)
- UPE (Computer Science Honor Society inducted Jan 1992)

## **Professional Certifications:**

- Cisco WLAN - Cisco Wireless LAN FE/SE Certification Dec 2001
- CCIE #8037 – Cisco Certified Internetwork Expert (Cisco Systems) Aug 2001
- CCCS/CQS – Cisco Cable Communications Specialist (Cisco Systems) Jun 2001
- MCP – Microsoft Certified Professional (#1689214) Jun 2000
- CNX#1089 – Certified Network Expert (CNX Consortium) Aug 1999
- CCDP – Cisco Certified Design Professional (Cisco Systems) Aug 1999
- CCDA – Cisco Certified Design Associate (Cisco Systems) Aug 1999
- CCNP – Cisco Certified Network Professional (Cisco Systems) Jul 1999
- CCNA – Cisco Certified Network Associate (Cisco Systems) Jul 1999

## **Teaching Experience:**

- Florida Public Library Technology Workshop (seminar), May 2002  
“Is Wireless in Your Future? LANs, WANs, and Digital Canopies”  
“Internet Filtering Software – The Technical Side”

## **Skills:**

- Over 21 years of computer network, data communications, and computer hardware/software engineering experience.
- Extensive routing and switching multiprotocol computer network WAN/MAN/LAN design and hands-on implementation experience.
- Extensive routing and switching troubleshooting experience with Cisco and other equipment.
- Extensive UNIX system administration, systems programming, and scripting experience.
- Extensive computer software/firmware development experience in UNIX, PC, and mainframe environments.

- Project management experience.
- Project lead experience.
- Supervisory experience.
- Computer hardware design experience.
- Network service provider presales experience.
- Excellent interpersonal, written communication and presentation skills.

## **Experience:**

1/2001- Present

Sr. Advanced Network Systems Engineer, Hayes Computer Systems, Tallahassee FL.

- Responsible for Internet and core backbone networking.
- Maintain, upgrade, and troubleshoot core Cisco routers, Catalyst switches, ATM switches.
- Design and deploy new CMTS/cable modem/gigabit switching infrastructure in Tallahassee for Comcast Cable.
- Design and deploy wireless LAN and point-to-point networks for various customers (Digital Canopy, FL Capitol Building, FL House of Rep., Supreme Court, Leon County Courthouse, FL Emergency Operations Center, Bay County Courts, etc.)
- Architect new network designs.

2/2000- 1/2001

Sr. Network Engineer (Specialist – Computer System Control), Academic Computing and Network Services, Florida State University.

- Responsible for Internet and core backbone networking for Florida State University.
- Maintain, upgrade, and troubleshoot core Cisco routers, Catalyst switches, ATM switches, 3COM routers/switches, Cabletron routers/switches, firewalls, web cache engines, etc.

3/2000- 12/2000

Network Engineer Consultant, Capital City Bank Group (Nasdaq:CCBG), Tallahassee FL.

- Responsible for engineering a 50+ Cisco router multiprotocol frame-relay network.
- Responsible for configuring Linux tools to monitor the network status, collect utilization statistics, archive router configurations, collect system error logs, etc.

8/1999-1/2000

Sr. Network Engineer/ANS, Advanced Network Systems, Sprint (Nasdaq:FON) Tallahassee FL.

- Overall responsibility for network architecture design for the Metropolitan Area Network (MAN) and Internet services in Northern Florida.
- Responsible for daily operations and additions to Tallahassee MAN and Internet services including 500+ routers.
- Responsible for design and deployment of statewide backbone data networks employing OC12/OC3/T3/T1 ATM, FDDI, Ethernet, Frame-Relay, ISDN, TCP/IP and other technologies.
- Responsible for assisting network engineers, NOC personnel, and field technicians as fourth level technical support.
- Responsible for managing major projects with \$3M capital and \$1M expense annual budget.
- Assist BMO sales organization with technical issues on sales calls, demonstrations, solving high visibility customer problems, responding to requests for proposals, etc.
- Prototype multivendor networks in lab for interoperability testing, proof of concept testing, bug troubleshooting, etc.
- Responsible for custom enterprise network design and troubleshooting on strategic customer accounts.

10/1997- 8/1999

Sr. Engineering Manager, Advanced Network Systems, Sprint Southern Operations, Tallahassee FL.

- Responsible for Metropolitan Area Networks in Tallahassee, Ft. Walton Beach, Crestview, Panama City, Pensacola, and Marianna.
- Responsible for deploying OC12/OC3/T3/T1ATM and TCP/IP backbone computer networks.
- Responsible for managing our custom commercial World Wide Web server offering.
- Responsible for writing business cases for potential new projects and presenting them to management.
- Responsible for third level technical support.
- Responsible for some UNIX system management on SunOS, Solaris, and IRIX platforms for network services such as DNS, NEWS, NTP3, TFTP, etc.
- Supervised a team of Data Systems Technicians.

3/1996 - 10/1997

Sr. Project Manager, Advanced Network Systems, Sprint-Florida, Tallahassee FL.

- Responsible for Metropolitan Area Networks in Tallahassee, Ft. Walton Beach, and Ocala.
- Responsible for deploying T3/T1ATM and TCP/IP backbone computer network in 17 Florida cities.
- Responsible for managing our custom commercial World Wide Web server offering.
- Responsible for writing business cases for potential new projects and presenting them to management.
- Responsible for 3rd level technical support.
- Responsible for some UNIX system management on SunOS, Solaris, and IRIX platforms for network services such as DNS, NEWS, NTP3, TFTP, etc.
- Supervised a team of Data Systems Technicians.

12/1995 - 3/1996

Project Manager / Project Engineer, Advanced Network Systems, Sprint/Centel-Florida, Tallahassee FL.

- Primary responsibility for managing a project involving the deployment of a wide area TCP/IP network to provide dialup Internet service throughout Florida.
- Responsible for supervising the system management of commercial Internet e-mail and World Wide Web servers.
- Supervision of computer programmer consultants involved in custom World Wide Web development.
- Involved in marketing activities with respect to providing statewide Internet access to large professional organizations.

11/1993 - 12/1995

Research Faculty / Head of the Computer and Network Facility, National High Magnetic Field Laboratory, Tallahassee FL.

- Responsible for training and management of the NHMFL Computer Support Group, a group of nine computer support specialists within the Operations department and setting lab policy relating to computers and networks.
- Primary responsibility for computer security including the operation of a network firewall, system security logs and network security.
- Responsible for assessing needs and ordering all computer and network related hardware and software.
- Primary responsibility for all 17 Local Area Networks, WAN connections, and dialup PPP/SLIP connections. (FDDI, Ethernet 10baseT, Ethernet 10base2, Ethernet 10baseF and Localtalk hardware using the TCP/IP, AppleTalk, and IPX protocols).
- Responsibility for all voice and data network wiring and pathways (including horizontal and vertical copper and fiber cable specification, supervision of installation, documentation, and maintenance of 12 wiring rooms in three buildings).
- Primary responsibility for establishing a UNIX-based World Wide Web server and top-level HTML pages including CGI scripts clickable image maps, etc.
- Responsible for maintenance of several UNIX servers including Sun SPARC, Dec Alpha, Silicon Graphics, and IBM RS6000 including DNS, HTTPD, POP3, SMTP, SNMP, NTP, PCNFS, NFS, LPD.
- Authored several UNIX system programs and scripts for automating creation of user accounts, mailing lists, DNS consistency checks, process status, WWW mirroring, printer server management, disk quota checking, automated random password generation, etc.
- Member of the FSU Computer Network Committee.

11/1994 - 1/1995

Independent Consultant, FSU Center for Education Technology, Tallahassee FL.

- Analysis of Internet computer hacker break-ins on Sun UNIX server SY2000.CET.FSU.EDU
- Secure setup of new Solaris departmental server to replace compromised system.
- Ongoing system management functions for departmental server.

5/1992 - 11/1993

Senior Computer Engineer, National High Magnetic Field Laboratory, Tallahassee FL.

- Responsible for all computers, all data communications, and all data acquisition systems within the facility from inception.
- Designed and supervised the installation of a facility wide 10baseT and fiber optic computer network.
- Evaluated, installed, and maintain network communications software and hardware including TCP/IP routers, Localtalk protocol converters, 10baseT concentrators, dialup modems, and terminal servers.
- Evaluated, installed, and maintain SNMP Network Management System.
- Evaluated, installed, and maintain UNIX-based Sun fileserver, mailserver, nameserver, printer server, etc.
- Install, maintain, and manage IBM RS6000 compute server/workstations.
- Evaluated IBMPC and MACINTOSH personal computer electronic mail software, network software, ethernet adapters, etc., and trained assistants to install them.
- Installed and maintained a TAMU Drawbridge firewall system to protect the lab from the FSU and Internet communities.

12/1991 - 4/1992

Independent Consultant, National High Magnetic Field Laboratory, Tallahassee FL.

- Designed and implemented custom "C" Language software for an IBMPC-based IEEE-488 data acquisition system to collect, graph, and store real-time pulsed-magnet experimental data.

6/1990 - 5/1992

Research Faculty / Assistant in Research, Program in Structural Biology / Molecular Biophysics, Florida State University.

- Designed, installed, and maintained departmental local area computer network.
- Managed SGI IRIS, Sun, DEC VAX, and NeXT computer workstations.
- Interfaced computer systems to control and/or collect data from various lab instruments including muscle tissue dynamics apparatus, spectrophotometer, MSP, infrared VCR controller, animal enclosure lighting controller, photon counter, and video frame grabber.
- Installed software, upgraded hardware, debugged problems, and train personnel on IBM PC and Macintosh microcomputers.
- Attended FSU Networking Committee and Building Wiring Subcommittee meetings to help with campus-wide long range planning.

7/1988 - 12/1993

Independent Software / Engineering Consultant, Johnson & Johnson Vistakon Division (NYSE:JNJ), Jacksonville FL.

- Design of custom instrumentation for R&D group including humidity controller, radiometer controller, ultrasonic contact lens thickness gauge, molding machine monitor, contact lens eye tracker, contact lens automated inspection system.
- Design and installation of TCP/IP LAN and departmental Sun 4/390 server, SPARCstations, NIC cards, PC-NFS suite, etc., for R&D group.
- Design and implementation of Pilot Line custom multi-user XENIX contact lens inspection and database systems.

6/1988 - 12/1988

Independent Consultant, International Terminals and Computers, Inc., Tallahassee FL.

- Wrote firmware in z80 assembly language for ITC's LC-1 intelligent Unisys compatible computer terminal.
- Debugged and customized an 8086 assembly language PC-MOS device driver to convert LC-1 terminals into MS-DOS workstations for the Bank of Mexico.

3/1988 - 6/1990

Research Faculty / Assistant in Research - Computer Network Specialist, Supercomputer Computations Research Institute, Florida State University.

- Maintained TCP/IP and DECnet computer networks.
- Installed and configured network software on a variety of minicomputer and microcomputers.
- Diagnosed, isolated, and corrected network failures.
- Answered questions concerning E-mail, file transfer between heterogeneous systems, and other network related questions.
- Provided system management for a variety of UNIX (SunOS,Ultrix,IRIX,AIX) and VAX/VMS systems.
- Handled problems and answered technical questions concerning the IBM PC family of computers.
- Sat on the SCRI Local Systems Committee to help make decisions on computer equipment purchases.

5/1985 - 3/1988

Senior Systems Programmer, Techna Vision Inc., San Diego CA.

- Worked as a member of a team of 25 computer programmers, with primary responsibility for all systems software design.
- Wrote firmware, device drivers, and other low level software for use in a variety of medical instruments in "C", FORTRAN, 8086, and 8051 languages.
- Designed a master / slave communication system for use between the instrument control computer and embedded microprocessors.
- Helped with debugging and design of custom computer hardware.
- Wrote geometric / optical calibration, photometric calibration, and Q/A test software.
- Visited beta test sites, trade shows, and sales training sessions to install prototype instruments and answer technical questions.
- Managed small Microport SystemV UNIX UUCP e-mail and BBS server.

1/1985 - 5/1985

Contract Programmer, Psychology Department, Florida State University.

- Designed and implemented a software system to digitize CAT scan slides, store and retrieve images from disk, and compute statistics.
- Wrote software to display images in pseudocolor on both a color graphics terminal and high-resolution color ink jet printer.

9/1981 - 5/1985

Senior Programmer, Muench Center for Color Computer Graphics, Florida State University.

- Acted as an assistant to the director.
- Led a staff of five on various color computer graphics software projects.
- Wrote several systems programs to interface heterogeneous computer systems out of necessity.
- Configured a 40-seat student computer lab with color graphics terminals, CP/M microcomputers, X.25 PAD for mainframe access, and shared color printers.
- Instructed gifted summer high school students in the "C" language and color computer graphics.
- Helped install and customize a computer network of Sun UNIX workstations (Sun2/50) and file servers (Sun2/170) for the Computer Science Department (Su82).
- Ported many microcomputer color graphics applications to the sun workstation platform.

6/1981 - 9/1981

Student Assistant, Mesoscale Air-Sea Interaction Group (COAPS), Florida State University.

- Worked on NOAA project to study El Nino phenomena.
- Drew wind stress vector maps of Pacific Ocean from Navy data.
- Interpolated / digitized data from maps.
- Entered data into CDC Cyber mainframe for analysis and color graphic movie production.

## **Familiarity with the following systems:**

### Computer Hardware

- CISCO TCP/IP multiprotocol network routers (16xx,17xx,25xx,26xx,3550,36xx,7000,72xx,75xx,uBR924, uBR7246VXR,5500+RSM,6000+MSFC).
- CacheFlow 5070 web cache engine, Cisco CE2050, CE560, CE507 Cache Engine/Content Engine.
- Cisco IP phones, call manager, and voice mail systems.
- Redback SMS500 DSL aggregation devices.
- Extreme Summit 48 switch/router.
- XYLAN/Alcatel OMNI-Switch routers / ATM Switches.
- Network Systems/StorageTek DXE and Borderguard Routers.
- Network Associates/Network General Sniffers (Ethernet, Fast Ethernet, T1, FDDI, Token Ring, ATM, and remote sniffer platforms.)
- CISCO/US Robotics TCP/IP terminal servers (AS5100, AS5200, AS5300, TACACS).
- CISCO PIX Firewall / NAT, Cisco IOS Firewall Feature Set.
- CISCO Catalyst 6000,5000, 5500, 3550, 3500XL, 2950, 2948G, 2900XL, 2800, 1900, 3920 ethernet and token ring switches.
- CISCO LRE 2900, Tut Systems 5000 VDSL systems.
- CISCO LightStream 1010 ATM switches
- 3COM NBX 100 phone systems
- Alantec PowerHUB TCPIP/IPX/Appletalk multiprotocol network routers.
- Cabletron SSR-8000 routers.
- 3COM 9000 routers.
- Telebit NetBlazer TCP/IP network routers.
- Cayman GATORBOX AppleTalk network routers.
- TAMU TCP/IP network firewall.
- Assorted modems and other asynchronous communications equipment.

- Hewlett-Packard and IBM family of E-size sheet feed and roll pen and ink jet plotters (i.e. HP DesignJet 755CM).
- IBM RISCsystem 6000 model 320H, 340, 375, 560, 580 (RS6000 Power and Power2 architectures).
- Silicon Graphics IRIS 4D/35, Indy, Indigo2, Power Challenge.
- Sun Microsystems Sun-2, Sun-3, Sun-4 (SPARC).
- Apple Workgroup Server 95, 9150/120.
- DEC Alpha UNIX systems.
- DEC VAX 8700, 11/780,  $\mu$ VAX, 3500, VS3100, VS3200, etc.
- DEC DECstation 3100, 5000, etc.
- NEXT NeXTstation Color Workstation, Cube, etc.
- IBM PC/XT/AT/386/486/PS2/Pentium and compatible family of microcomputers.
- Macintosh 68K family of microcomputers.
- Macintosh PowerPC 6100, 7100, 8100, 9150 RISC-based systems.
- IBM SP2, Cray YMP, Thinking Machines CM-2, ETA Systems ETA10, CDC Cyber 205 supercomputers.
- Control Data Cyber 730, 760, and 835 mainframes.
- Datavue 3000, Xerox 820, Intecolor 8064, and other CP/M microcomputers.
- Huntsville Microsystems 8088, z80, and 8051 family of in-circuit emulators.
- Teltone ISDN BRI simulators.
- Western Multiplex Tsunami 5.8GHz wireless bridges
- 802.11 Wireless Access Points and Bridges (Cisco Aironet, Enterasys, Linksys, Lucent/Orinoco)
- Micromint Intel 8051 family microcontroller single board computers.

## Operating Systems / Environments

- UNIX including internals (Solaris8, SunOS 4.1.4, SGI IRIX, DEC OSF/1, BSD, Microport System V, IBM AIX, SCO Xenix, DEC Ultrix, Minix, Mach, Linux Redhat, Linux Slackware, FreeBSD, OpenBSD, NetBSD, Apple A/UX, POSIX, LSI-11 Venix, DEC Eunice).
- MIT X Window System, DECwindows, Sun Open Windows, IBM AIXwindows, MacX, Netmanage Chameleon UNIX Link, GNOME, KDE.
- Microsoft Win95, Win98, NT 4.0, Win2K, WinMe, WinXP (client and server).
- Macintosh System 7.5.
- DEC VAX/VMS (VMS v4.7, v5.2, DECwindows, LAVc).
- Microsoft MS-DOS, WINDOWS, WINDOWS for Workgroups.
- SNMP Management Systems (Seagate Netlabs, HP OpenView, SunNet Manager)
- IBM OS/2 v2.1, OS/2 WARP.
- Digital Research FLEX/OS, CP/M, MP/M, CP/M-86, CP/NET.
- Software Link PC-MOS (multiuser DOS emulator).
- Control Data NOS, PLATO (Programmed Logic for Automated Teaching Operations).
- Intelligent Systems FCS.
- Cisco IOS, Cisco Catalyst XDI, Redback AOS.

## Protocols

- TCP/IP (DNS, SNMP, SMTP, POP3, NTP3, HTTP, FTP, BOOTP, SLIP, NFS, DHCP, NAT, IPSEC, GRE, SYSLOG, NTP)
- Cisco (CBAC, NBAR, CAR, CB-WFQ, GTS, GRE, NAT, HSRP, Modular QoS)
- Multicast (PIM, IGMP, CGMP)
- DOCSIS (Data Over Cable Systems Interface Specifications)



- PPP (PAP, CHAP, MS-CHAP)
- IP Routing (OSPF, EIGRP, BGP4, RIP1, RIP2, IGRP, IS-IS)
- IPX (RIP, NSLP)
- ISDN Q921, Q931
- MPLS/VPNs, Tag Switching
- IBM SNA/SDLC/DLSW+/BISYNC/SRB/SRTB
- AppleTalk Phase2 (EtherTalk, LocalTalk, ARA)
- DECNET, LAT, LAVc.
- ISL, 802.1Q, 802.10/SDE Trunking
- 802.11b Wireless
- IEEE Std 802.1D-1998 Spanning Tree, BPDUs, etc.

## Languages

- HTML 2.0, 3.0, CGI
- "C" (GCC, Microsoft C, Turbo C, Borland C++, Aztec, K&R, ANSI, SGI Power C).
- FORTRAN (FORTRAN-V, FORTRAN-IV, VAX FORTRAN, F77, Microsoft FORTRAN).
- Pascal (Turbo Pascal, CDC Pascal, Sun UNIX Pascal).
- Assembly Language (8086/80286/80386/80486, 8080/z80, MCS-51, COMPASS).
- BASIC (Microsoft BASIC, Quick BASIC).
- CLIPS (NASA Forward Chaining Expert System).
- M5 (Backchaining Expert System Shell).
- TUTOR (CDC PLATO SYSTEM Language).
- COBOL (CDC Cyber Version).
- DCLs (Bourne Shell, C-Shell, Korn Shell, VAX DCL).
- PERL, TCL, EXPECT
- Some exposure to Oracle Forms, Reports, SQL\*NET.
- Some exposure to Novell Netware 386.
- Some exposure to Banyan VINES system management.

## Application Software

- Word Processors (Microsoft Word, WordPerfect, WordStar, TROFF, TeX)
- Spreadsheets (Microsoft Excel, Lotus 1-2-3, Twin, Borland Quattro Pro)
- WWW (Adobe PageMill, Adobe SiteMill)
- CAD (Autodesk AutoCAD, Generic CADD, Turbo CAD, Claris CAD)
- Drawing (Visio Pro, Adobe Illustrator, Claris Draw, MacDraw Pro, Inspiration, Corel Draw)
- Graphics/Map (MapLynx, Route66, Adobe Photoshop, Corel Trace, Envision-It)
- E-mail (Eudora, Elm, BSD Mail, Banyan Mailman, Banyan BeyondMail, MS Outlook)
- Presentation (Microsoft PowerPoint, Lotus Freelance)
- Project Planning (Microsoft Project, Claris Project)
- Database (FileMaker Pro, Dbase III+, Oracle, Microsoft Access)

## References:

- Available upon request.