

**Peter B. Olson**

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**SUMMARY**

Senior Software Engineer with focus on C/C++, Internet protocols, speech synthesis and recognition, Linux system programming, Web programming, HTML, and XML.

- Major experience with C and C++; additional experience with Unix shell programming, LISP/Scheme, SQL, Visual Basic, Perl, Python, APL, and assembly languages for Intel x86 series, PDP-11, 68K, and PowerPC.
- Major experience with Linux; additional with Windows NT, Mac OS X; experience with legacy systems such as (formerly DEC) VMS, Tru64 Unix, Solaris, IBM mainframe operating systems, every release of Mac OS prior to Mac OS X, MS-DOS, CP/M, and embedded systems.
- Experience with Text to Speech synthesis and Automatic Speech Recognition.
- Proficiency with TCP/IP and Internet applications including Web programming and standard protocols such as HTTP, SMTP, Telnet, and FTP.
- Thorough familiarity with HTML/CSS and XML/XSLT.
- Conversance with Java, JavaBeans, EJB, and IBM WebSphere.

**EXPERIENCE**

**Chief Technical Officer, Amazability, Inc. (2002 to Present)**

- Developed Linux "voice shell" using AT&T Natural Voices as Text to Speech engine.
- Integrated Carnegie Mellon University Sphinx II speaker-independent speech recognition engine with voice shell as part of a research project in voice command and control.
- Implemented Dynamic State Acquisition framework for context-sensitive speech recognition.
- Administered test suite with seven visually impaired test subjects for measuring command and control accuracy with the integrated software and performed statistical analysis of results.
- Implemented e-mail interface and text extraction for reading MS Office and PDF files.
- Implemented multimedia support for MP3, OGG, and other audio formats.
- Implemented prototype DAISY e-book reader.
- Participated in proposal writing and production of documentation.
- Installed CVS source code control, Bugzilla bug/feature tracking, and GNU Autoconf build.
- Performed miscellaneous administrative tasks.

**Senior Software Engineer, Prospero Technologies (1999-2002)**

- Responsible for Internet infrastructure, including IP address range allocations, load balancer for Web farm, DNS servers, coordinating with Network Service Providers in

- multi-homed (BGP) connectivity environment, and performing Internet Postmaster duties for Prospero, Delphi Forums, and BIX.
- Implemented site monitoring subsystem with load balancer control and reboot capability for ailing servers; this included an extensive dynamic Web page system for viewing the health of the Web farm at a glance.
  - Installed VPN connections for Prospero San Francisco and Cambridge offices, as well as VPN linkage to the off-site Prospero computing center.
  - Coordinated End of Service transition for the legacy (modem/text based) Delphi Forums and BIX online services.
  - Major participant in moving the computing center to first-class colocation facility.
  - Developed documentation for colocation site and procedures after Prospero was purchased by Inforonics (Littleton, MA) in December 2001.

### **Senior Software Engineer, Delphi Forums, Inc. (1996-1999)**

- Responsible for legacy Delphi Forums and BIX online services.
- Implemented login authentication cookie generator/validator.
- Implemented HTML/CSS filter for on-the-fly transformation of Delphi's HTML 4 Web pages to HTML 3.2 for compatibility with older Netscape browsers; this included extensive heuristics to minimize the effect of malformed HTML in member-provided messages.
- Participated in several design regimes during the transition of Delphi Forums from text-based modem access using VAX/VMS to a native Web message board based on Windows NT with IIS and SQL database back end, with an emphasis on interoperability of the two modes of access to the unified message database.
- Technical support specialist and Editor in Chief for the BIX online service.
- Internet Postmaster for Delphi Forums and BIX.

### **Information Engineer, Delphi Internet Services (1992-1996), a subsidiary of The News Corporation Limited (1994-1996)**

- Responsible for most software development of Delphi online service on VAX/VMS.
- Participated in management of Delphi online Forum managers.
- Responsible for software development on BIX online service on several Unix based platforms. Developed Internet e-mail interface. Implemented access to USENET, Gopher, and Archie, and adapted PPP Internet access and Lynx for online use.
- Implemented portions of the Web publishing interface for The News Corporation newswires and iGuide project.
- Produced proof-of-concept demo of integrating the BIX online service with Web browser access including a database back end and dynamic HTML front end, and unifying the Web access with the text-based online service.
- Internet Postmaster for the BIX online service.

### **Information Engineer, General Videotex Corporation (1985-1992)**

- Enhanced the Delphi real time chat software to support a VAXcluster with distributed client interfaces and internode message switching.

- Took over design and programming of the Delphi message board software and download library software from the original developer.
- Did fault mode analysis of XMODEM and YMODEM file transfer protocols in connection with the delay and error characteristics of X.25 packet networks; implemented heuristics to reduce incidence of failed downloads.
- Implemented ZMODEM file transfer protocol with state of the art heuristics for download flow control and error correction.
- Managed the ICONtact Macintosh Special Interest Group on Delphi.

## **PREVIOUS EMPLOYMENT**

- Amnet, Inc: a manufacturer of X.25 packet switching networks, voice response telephone systems, and telecommunication networks for banks, retailers, and telephone companies; implemented telecomm network for first Baybanks ATM network in New England; installed a voice-response front-end for an emergency parts ordering system for Deere & Company in Moline, Illinois; developed 3270 device emulation for IBM 370 channel interface; did optimization of X.25 packet switching engine written in C and rewrote embedded programming of 80186 in assembly language, as part of a contract with the Swedish Defense Ministry; participated in kernel and application programming for a proprietary operating system.
- The Boston Company: contract programming for maintenance of an online database backend.
- Connolly Data Systems: wrote commercial software package for offline and remote access to Banyan VINES e-mail.
- Boston Safe Deposit & Trust Company: did system programming for IBM 370 and 3033.
- First National Bank of Boston: did system programming for IBM 360 and 370.
- Syracuse University: did system programming for IBM 360; was computer operator for IBM 7074 and 1460; developed several research operating systems for 7074 and 360; implemented timeshared access to automated text processing software and IBM APL\360 including a custom designed conversational remote job entry from campus-wide typewriter and video display terminals.
- Did miscellaneous contract work involving Data General Nova, IBM System/38, and others.
- Wrote and distributed several Macintosh freeware applications.
- Designed and wirewrapped TTL MSI interface hardware for connecting IBM 735 Selectric Typewriter to Computer Automation LSI/2 minicomputer; developed embedded system word processor application including device driver and operating system in 32K bytes.

## **EDUCATION**

B.S. Mathematics with Honors in Computer Graphics, Syracuse University.