DANIEL A. GLASSER

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CAREER OBJECTIVE

An innovative and experienced professional software engineer with a proven track record seeks opportunities with a solid technology oriented company where skills in requirements capture, design, analysis and problem solving may be applied, and where opportunities and potential for professional growth are present.

BACKGROUND SUMMARY

More than twenty-one years of industry experience designing and implementing object oriented and modular systems. Extensive firmware, operating systems, network, real-time, programming languages and tools, and application design & implementation, protocol design and analysis, and terminal emulation experience. Excellent requirements capture, problem analysis and solving skills. Strong documentation and written communications skills. Proven track record of correct, efficient, robust, portable and maintainable design and coding. Able to quickly master programming environments and languages. Specific areas of expertise include:

C/C++	**Tcl/Tk**	**Java**	**X11**	**JavaScript**	**Linux**	**UNIX** (Solaris, SysVr4, bsd, HP-UX)
XML	**XSLT**	**XML Schema**		**Embedded Systems** (firmware)		**Microsoft Windows** 9x/NT/2000/XP
Device Drivers		**Real-Time**				**Parsers, Compilers** and **Interpreters**
Serial Communications		**IP Networking**		**Communications Protocol Design**		**HTML / HTTP**

PROFESSIONAL EXPERIENCE

TechLink Systems, San Francisco, California — July 2003 - March 2004
Contracting/Consulting
Client: IBM Research, Cambridge, MA (8.5 month contract)

Contractor/Consultant

- Worked with a research team on the development of prototype engines for high performance XML instance validation and de-serialization based on XML Schema in Java and C to be used in web services and database applications.
- Developed a high-performance XML instance scanner in Java.
- Performance analysis of XML scanning/validation in the Java environment.
- Testing, bug fixing, and code maintenance in both the Java and C code bases.
- Reworked existing C code to make it more robust.

Noumena Corporation, Dexter, Michigan — October 2001 – November 2003
Contracting/Consulting

Contractor/Consultant

- Design and development of a Tcl language extension to support communications with Allen Bradley Programmable Ladder Controllers (PLC) over a network using the Rockwell Interchange DTL library. The extension is written in C and runs on Solaris 2.X and higher and HP-UX 10.x and higher.
- Design and development of an event driven application that communicates with multiple PLCs controlling the loading of palettes with finished product and passing the status and line data to a database application through a POSIX IPC queue mechanism. The application is fault tolerant and runs as a daemon. It is written in C and runs on Solaris and HP-UX.
- Development of an application that allows workers at a cereal packaging plant to configure the barcode printers at the palette loading stations. This is a graphical UI application that sends the selection to the database, which in turn sends the information to the printing stations. It is written in Tcl/Tk. This project also included the design and development of a product information editor (also written in Tcl/Tk) used to maintain the list of selections available to the configuration program.
- Design and development of an application that monitors packaging machinery on a cereal packaging line for quality control and productivity statistics. The information is then passed on to a database to be used in automation control. This application is written in Tcl.

- Design and development of a Tcl package to handle communications with a network connected digital scale used in a cereal packaging line.

NetPOS Incorporated, Ann Arbor, Michigan February 2001 – October 2001
Point of Sale Technology

Consultant

- Interface design and implementation of a web browser based point of sale system for the food service industry using the ASP (Application Service Provider) model combining JavaScript, XHTML, XML, XSLT, and CSS2 under Microsoft Windows Internet Explorer on the client side and XML, Perl, and Oracle DBMS with the Apache HTTP server under Linux on the server side.

OXFORD GLOBAL RESOURCES, Beverly, Massachusetts March 2000 – January 2001
OXFORD GLOBAL RESOURCES, Beverly, Massachusetts February 1999 – August 1999
SYSTEM PROS INCORPORATED, Peabody, Massachusetts September 1999 – February 2000
Contracting/Consulting

Contractor

- Documented and maintained existing code for various subsystems of a medical diagnostic device. Solaris 2.6, X11/Motif, and Oracle database running on an UltraSparc CPU for front-end, Solaris 2.6 running on a SuperSparc CPU for real-time and robotics control. Coding in C.
- Coding in C++ on Microsoft Windows NT as a part of a team developing a large metal buildings design, estimation, and ordering system for installation in field and sales offices of a metal buildings manufacturer. Microsoft Visual C++ 6.0.
- Documented and redesigned portions of client's application using C++ on Windows NT 4.0. The application consists of multiple programs, each running multiple threads, communicating via named pipes, semaphores and events.

MEDIA STATION, INC., Ann Arbor, Michigan March 1998 – November 1998
Broadband Multimedia Delivery

Research Engineer

- Developed concepts for delivery of multimedia game and educational titles over a limited bandwidth broadband connection for execution by an engine on client set-top boxes. The titles would be hosted on servers at the broadband provider (cable company), and made available on a per-day/per-title or other subscription basis.
- Developed prototype multimedia title engine in C++ for digital cable set top box using the PowerTV operating environment.
- Developed concepts for a framework to create interactive programming for digital set-top boxes where data is sent within MPEG streams that would be used by a client running on the set-top box that allowed location-specific graphics and text to be displayed as an overlay on "live" video, and allow a viewer with a remote control to interact with the programming. Servers at the service provider (cable company) could be signaled by the client, and combined with the demographic information for the customer associated with the unique unit ID, this could be used for on-line surveys, shopping, or educational applications. Wrote preliminary specifications for tools to create interactive video programming.

FIRST VIRTUAL HOLDINGS INCORPORATED, Ann Arbor, Michigan February 1996 – August 1997
Secure Internet Commerce.

Senior Research Engineer

- Conceived, designed, implemented and deployed automated testing facility for message based Internet commerce systems providing both deterministic and non-deterministic testing paths, resulting in an 80% reduction in man-hours required for equivalent testing.
- Lead design of protocol and functional extensions to Internet payment system.
- Conceived and designed a system to allow tracking of individuals on the Internet and facilitating the delivery of MIME packaged information in a secure and timely fashion. This included communication directly between servers and clients (push), indirect communication via HTTP proxy (poll), and fallback via SMTP (e-mail).
- Developed and executed data migration, regression and load testing of Internet payment system server.
- Developed and implemented programs for MS Windows 3.1, MS Windows 95, and MS Windows NT to demonstrate a fundamental security flaw in most desktop operating systems.
- Analyzed and documented existing Internet commerce server code including functional decomposition, program flow and design issues, producing a 300 page HTML document. This reduced the time required to bring new

staff to productive understanding by an estimated 50%-60%, as well as reducing maintenance time.
- Assisted in debugging and deployment on two major version transitions for the Internet commerce server systems.

PERSOFT, INCORPORATED, Madison, Wisconsin June 1988- February 1996
A developer and publisher of terminal emulation and networking software for personal computers.

Software Engineer
- Chief architect, designer, and programmer of terminal emulation, graphics, and scripting core for MS DOS and MS Windows based terminal emulation products. Primary coding in C and C++. In this capacity, was directly involved with several products throughout the product life cycle, from concept through implementation, testing, release and maintenance.
- Involved in file transfer and user interface design and implementation for serial terminal emulation products.
- Designed and implemented core emulation engine for Digital ANSI and graphics terminals up to VT500 level for MS DOS, MS Windows, and Windows NT platforms, including:
  • ANSI Text • TEK 4014 • ReGIS Graphics • SIXEL Graphics
- Designed and implemented IBM 3278/3279 terminal emulation for Microsoft Windows and Windows NT platforms.
- Implemented the graphics emulation portion of the Data General 470 terminal emulation product for MS Windows.
- Designed and implemented the Persoft Script Language for MS Windows based terminal emulation products.
- Wrote original end user documentation for the Persoft Script Language for the SmarTerm products.
- Designed and developed a suite of bitmap and outline fonts for terminal emulation on MS Windows platform.
- Responsible for creation and maintenance of terminal emulation reference model.
- Redesigned and rewrote emulation core of original MS DOS VT220 emulator, resulting in a code reduction of over 50%, substantially improving the accuracy of emulation and greatly increasing emulation speed.

MARK WILLIAMS COMPANY, Northbrook, Illinois March 1986 – May 1988
A developer and publisher of C programming tools and UNIX-like operating systems.

Software Engineer
- Developed and maintained a C language compiler, runtime library, and a suite of associated tools for a M68000 based platform.
- Assisted technical support staff with difficult customer problems, often dealing directly with customers.
- Produced example programs and detailed descriptions for product documentation.

DIGITAL EQUIPMENT CORPORATION, Maynard, Massachusetts June 1981 – September 1985
A computer hardware and software manufacturer.

Software Engineer (1983-1985)
- Terminal design, terminal and workstation firmware design and implementation, communication and protocol design. Coding in C, BLISS and assembly language on PDP-11, VAX, and M68000 platforms.
- Re-implemented graphics firmware components that reduced drawing time by a factor of 8.
- Designed and implemented NAPLPS and TELIDON graphics terminal emulations for PDP-11 based personal computer.
- Designed and led implementation of user interface, display list, and event driven real time operation kernel for embedded graphics terminal prototype. Implementation in C and 68000 assembly language.
- Designed extensions to ANSI and ReGIS presentation protocols for DEC serial terminals.

Educational Specialist (1981-1983)
- Developed course material for internal and customer training for various DEC programming environments and languages.
- Acted as liaison between engineering and Educational Services Software Course Development during the design phase of a new system.

EDUCATION

Bachelor of Arts, Computer Science, Hiram College, Hiram, Ohio 1981