Mark Steven Jeghers
Web/JavaScript/React/Java/Python/OO/UI
Senior Software Engineer

PERSONAL INFORMATION:

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SUMMARY:
Senior Software Engineer focusing mainly on GUI designs using HTML /ReactJS / jQuery / JavaScript / AJAX and Flex/ActionScript, Java/Swing as well as J2EE (including Servlets, JSP, XML). Also have done backend server work as needed in C, C++, Java, NodeJS and Python, both RESTful and generic APIs.

This last year my work has been primarily JavaScript / React / Redux and Node / Express. But I can certainly blow the dust off and re-awaken those other skills too.

Specialties: UI design, good clear documentation that people can actually read, communication skills (including teaching and public speaking)

OBJECTIVES:

- To lead teams in developing *really great* software that truly meets peoples needs
- To provide architecture that is more lucid, more reliable, more extensible, and more scalable
- To provide ergonomic excellence in GUI design, making more usable systems
- To seek out better interaction and synergy between your group and others
- To mentor junior engineers in order to bring out their very best
- To lead by example and become an indispensable asset to your organization

SKILLS:

- HTML, JavaScript, ReactJS, Redux, NodeJS, ExpressJS, jQuery, Python, Java, C, C++, Bourne/C Shell, AWK, MySQL, Apache, Perl, JSON, XML.
  - Web development includes *HTML, CSS, JSON, XML*, XSLT, *JavaScript*, *ReactJS, Redux, NodeJS, jQuery, CGI, Python, Perl, Backbase (an AJAX toolkit)*.
  - Java experience includes *Android apps, multi-threaded design, AWT, Swing, XML, JDBC, Logging, SNMP (manager-side), JBoss, Tomcat, Servlets, JSPs, and EJBs (the old ones)*.
  - Java 2 Programmer Certified.
  - C experience includes *X.11, Xlib, Xt, Motif, UIL, Wcl, XView, widget internals, ICCCM, configuration and building of X11 and Motif*, standard System V libraries, low-level I/O, interprocess communication, portation considerations, C-ISAM, multitasking issues, GUIs
  - C++ experience includes *Active Template Library (ATL) and COM, Microsoft Foundation Classes (MFC), Borland ObjectWindows Library (OWL)* , multitasking issues, GUIs.
- Windows 9x/NT/XP/7, Linux (RH9,RHEL,SUSE, CentOS), FreeBSD, SunOS (Sun3,Sparc), Solaris, VMS, UNIX System V, implemented countless platforms, SCO UNIX, Interactive 386/ix.
- Over ten years teaching Java, MS-Windows, MFC, C, C++, UNIX, X-Windows, Motif classes for U.C. Extensions, private in-plant contracts, and nationally for outside training firms; two software articles published in SIGS Publication magazines.
- Training provided for Sun, BEA, U.C. Berkeley, U.C. Santa Cruz, Lawrence Livermore Labs, Strategic Consulting, Hands On Technology Transfer, TAOS Mountain and others
- Architecture and OO design, complete development cycles, providing application frameworks, APIs, and custom UI components

- Excellent communication, public speaking, and team skills including leadership of teams divided across continents

EXPERIENCE:

ThreatMetrix, Inc. - August 2017 to present;
- Prototyping and designing new UI rewrite: based on React, Redux, React-Router, NodeJS, and Express.
- Implemented REST API in Java/Spring as a starting template for further migration of older RPC APIs.
- Assisting in maintenance of existing UI written in GWT, Java and Spring.

Brocade, Inc. - January 2011 to August 2017;
- Prototyping for upcoming UI rewrites: most efforts have been using React, but some time has also been spent with Redux, React-Router, NodeJS, Express, Angular and Ember. Developed several custom React components and a React-based System Logs viewing screen.
- Led the design and development of Flex-based User Interface, including the design of an advanced Framework for rapid and maintainable UI screens.
- Architecting and developing features for Configuration Templates, a powerful, scalable and flexible element configuration mechanism using XML and XSD.
- Web-based Enterprise Management portal using JavaScript/jQuery UI and Python/Django backend.

Motorola (formerly Symbol Technologies) - November 2002 to December 2010:
- Contributed to development of ADSP, a large Flex/BlazeDS-based Enterprise Management Appliance, utilizing Java servlets, Struts, Java-based Remote Objects, Adobe Flex and ActionScript UI technologies
- Designed and implemented Administrative Console and Core Services for a pilot Cloud-computing project, utilizing Tomcat-based servlets, Adobe Flex/ActionScript UI technologies, BlazeDS-based Remote Objects, Hibernate and MySQL
- Contributed to design and development of RFMS, a large AJAX-based Web UI for Enterprise-level management of wireless infrastructure, utilizing Java servlets, Struts, HTML, XML (including BackBase UI toolkit), JavaScript and Adobe Flex/ActionScript
- Designed a robust architecture for management of award-winning wireless switches, including extensible and scalable SNMP data access and rich Java-based user interfaces
- Developed a customized VPN solution for WalMart-specific version of wireless switch
- Established and maintained coding and look-and-feel guidelines for GUI implementations
- Platform-nimble initiative: implemented extensible designs where many platforms can be supported by one common code base without multiplying the complexity of the code
- Drove debugging processes during test phases for many releases, insuring the best possible final product in the timeliest manner
- Led teams divided between California and India to maximize their communication, clarity, synergy, task-focus and workmanship

Hyprotech, Inc. (formerly AEA Technology) - September 1993 to November 2002:
- Contributed to design and development of full featured GUI for PlantView (an industrial plant CAD/CAE system), PlantSchema (intelligent engineering drawing management), and AXSYS (engineering workflow)
- Created ATL/COM graphics engine component to replace archaic graphics code with many new and advanced features (used by other developers in both C++ and Visual Basic)
- Created MFC/COM component for smart spreadsheet display of engineering data (used by many other developers in both C++ and Visual Basic)
- Supported portation between OpenVMS and Windows NT, currently architecting and supporting MFC migration
- Implemented significant user-level customization of the application framework

Pacific Bell - January 1993 to August 1993:
- Developed a distributed prototype for InfoTel Service Order Processing; based on Wcl and Motif
- Developed a new Motif widget subclass: *ComboBox* emulates MS-Windows ComboBox selection object

Java Training – 1998 to 2002 *(occasionally while working contract other jobs):*
- Presented Java/Swing courses for multiple clients including Sun Microsystems (courses included SL-275, SL-285, and Java FastTrack)
- Presented WebLogic Server courses in San Jose, Toronto and Chicago
- Provided robust example code to students to supplement their existing training materials

Microsoft Windows Training – 1996 to 2002 *(occasionally while working contract other jobs):*
- Presented Windows development courses in OWL and MFC to classes all around the US
- Provided robust example code to students to supplement their existing training materials

X-Windows/Motif Training – 1990 to approx 2000 *(occasionally while working contract other jobs):*
- Presented X-Windows/Motif development courses in the Bay Area and all around the US
- Provided specialized training in advanced topics of X-Windows
- Provided robust example code to students to supplement their existing training materials

Cemax, Inc. - October 1992 to December 1992:
- Provided consultation and training for portation of VIP, an XView-based Medical Imaging package, to Motif
- Ported X11R5 and Motif 1.2 to Solaris 2.01 platform

Consilium - May 1992 to December 1992:
- Provided VMS-based Motif User Interfaces for Real Time Reporting system; used for database extraction from WorkStream manufacturing software
- Implemented an asynchronous API for DECmessageQ network I/O in a modeless Motif application
- Implemented session management for the iconic main menu providing subprocess control and orderly shutdown

Delfin Systems- January 1992 to May 1992, and August 1993:
- Consulted on GUI ergonomics and imaging data model for radar imaging system
- Developed graphical display for radar imaging system using combined XImage, occlusion, and vector graphics techniques; interfaced the graphical core to UIL-based dialogs
- Implemented message-based broadcast protocol for interclient communication

Condor Systems- September 1991 to January 1992:
- Developed an ICCCM-compliant Session Manager with a general-purpose interclient notification protocol built-in
- Developed an ICCCM-compliant Layout Manager to support retained screen layouts
- Developed a new Motif widget subclass: *Digit* provides numeric fields with "click-to-increment/decrement"

International Imaging Systems- June 1991 to August 1991:
- Trained engineering staff in X-Windows
- Provided consultation for Image Processing applications that must be implemented on X-Windows/Motif platforms
- Developed prototypes for several Image Processing systems using Motif interfaces
- Extracted a vector graphics library from a public domain X-Windows graphics tool

Digital Tools, Inc - January 1991 to May 1991:
- Implemented graphical user interface for AutoPlan, a high-end project management package
- Built graphical input system with MacProject-style activity boxes and links
- Added features such as continuous zoom with variable font sizes, total-view with automatic resizing, color occlusion for faster screen drawing, user configurable color preferences, auto-layout
- Moved XView implementation of AutoPlan to Motif

For X-Windows Classes taught for UC Berkeley, UC Santa Cruz, Mips, and others - June 1990 to approx 2000:
- Built an Xlib-based graphics application for training example purposes. The application uses just about every Xlib facility imaginable, including rasters, motion hints, selections, private color cells, grabbing, rubberbands. The applications includes the ability to cut and paste with other applications. Configured and built X11R4 and Motif 1.1 under Interactive UNIX (on a 386 platform). Developed Motif example programs to demonstrate color occlusion, image processing, ICCCM-compliant cut-and-paste, Motif Look-and-Feel standards.

Uniteq Application Systems - October 1990 to December 1990:
- Designed the extension of a character-based system to Motif
- Built Motif prototypes of application data-entry screens on IBM RS/6000
- Compiled and validated X11R4 on HP 9000/370

Motorola Computer Systems - February 1989 to October 1990:
- Built an Athena widget getty-replacement program with session control
- Corrected problems in FrameMaker 1.3b involving raster image inversions, server grabbing, and Motif window manager interaction
- Rasterized and implemented the "MPC" logo used on the MultiPersonal Computer login screen
- Validated and implemented Desktop Icon bindings on the MultiPersonal Computer (using Looking Glass)
- Built InstallMaker, a software installation packaging tool, as well as miscellaneous Configuration Management tools

Cogent Software Solutions, Inc. - August 1982 to January 1989:
- Integrated two vastly differing low-level application architectures, including the reverse-engineering of a large low-level object library
- Performed nationwide System Administration and trained other System Administrators
- Developed major distribution applications used by CPC International, Inc.

West Coast Consultants - June 1981 to December 1981:
- Built Curve Fit (curve fitting/plotting package)
- Built Curve USA (topographical analysis package)

NASA - Ames Research Center - January 1980 to May 1980:

- Worked with Upper-Atmosphere research team.
- Designed and built a test pattern generator for an INS (Inertial Navigational System) data-capture device carried onboard a U2 aircraft.
- Modified the Data Tape Reader to interface with a small HP scientific computer (used to process data tapes from U2 flights).

EDUCATION:

B.S.E.E., University of the Pacific, Stockton, California 1982