Steven Ford

Software Engineering Consultant

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Summary

Software developer who has been building GUIs using Java and Swing since each technology was first released. For the past few years has been developing mobile and web applications using JavaScript, jQuery, HTML and CSS. Has designed and developed GUIs for applications such as: high-frequency trading systems, network managers, and laboratory instruments, on desktop, web and mobile. Has US, UK and NZ citizenship.

Experience

Software Engineering Consultant at Oracle

August 2016 - December 2016 (4 months)

  Mobile and web development.

  Work was done using Java, JavaScript, HTML, XML, CSS, JDeveloper, Oracle ADF, Mac OS.

Software Engineering Consultant at Oracle

March 2016 - June 2016 (3 months)

  Using Oracle ADF, wrote components for Oracle's online learning application.

  Work was done using Java, JavaScript, HTML, XML, CSS, JDeveloper, Oracle ADF, Mac OS.

Software Engineering Consultant at Oracle

November 2013 - September 2015 (1 year 10 months)

  Using Oracle ADF Mobile, helped write a mobile app for iOS and Android devices which creates itself dynamically based on data from data controls and Java beans. The app dynamically assembles AMX pages and fragments based on JSON files that contain the data to be displayed and also describe the GUI to be used. (I.e. the data tells the app which GUI templates to use to display the data.)

  Using Oracle ADF, wrote an almost identical web app that runs on WebLogic and is displayed in web browsers.

  Wrote multiple, highly interactive and responsive custom controls for mobile devices. This was for a SPA (Single Page Application) that includes Oracle ADF custom controls much the same way you include custom components in AngularJS.

  Work was done using Java, JavaScript, jQuery, HTML, XML, CSS, JSON, JDeveloper, Oracle ADF Mobile, MAF, iOS, Android, GitHub, Vim, Bash, Mac OS.

Software Engineering Consultant at RGB Networks

June 2013 - September 2013 (3 months)

Added features to, and fixed bugs in, their BNP (Broadcast Network Processor) and VMG (Video Multiprocessing Gateway) products. (These products are used to do transcoding and high-density digital video processing.) Development work involved creating and/or modifying Swing components such as modal and non-modal JDialogs, JFrames, JTextFields, JComboBoxes and JTrees. Implemented features such as drag-and-drop on JTrees and added new components/functionality to existing dialogs.

Debugged/rewrote much of the existing code that used SwingWorker and background threads incorrectly with respect to the Swing EDT (Event Dispatch Thread). Debugged and wrote test cases to track down problems in the server-side code and XML-RPC layer that the Swing GUI used to communicate with the servers running on the video processing hardware.

Work was done using Java, JDK1.5, JDK1.6 and JDK1.7, Swing, Eclipse, Perforce.

Software Engineering Consultant at Diginome Inc

September 2012 - September 2012 (less than a year)

Developed a simple prototype GUI for Oracle OpenWorld 2012 to help demonstrate how Diginome's DataDNA Software was used to verify business transactions, (and find "missing" money), for the Chicago Transit Authority. The GUI allowed the person giving the demo to easily read/edit/write data files in preparation for the talk. The same GUI could also be used for the actual demo at the conference, and had an iTunes-like sorting and filtering interface.

Work was done using Java, JDK1.6, JDK1.7, Swing, JFreeChart, and Glazed Lists.

Tow Pilot, Flight Instructor, Glider Ride Pilot

May 2002 - September 2012 (10 years 4 months)

During the Northern Hemisphere summers:

Worked as a ride pilot giving scenic flights in Schweizer 2-32's and Schweizer 2-33's.

Worked as a flight instructor in Schweizer 2-33's and 2-32's.

Worked as a tow pilot using Piper Pawnees.

Soar Truckee is a very busy airport with lots of general aviation and private jet traffic.

Other duties included included building and grounds maintenance and minor aircraft maintenance.

Software Engineering Consultant at Physion Consulting LLC

September 2011 - January 2012 (4 months)

Developed a cross-platform graphical query builder to edit predicate expressions. The GUI allowed users who are not proficient at writing textual queries to create query expression trees easily. The GUI was designed in such a way as to make it easy to create complicated legal expressions and difficult to create illegal expressions.

Work was done using Java, JDK1.6 and Swing.

Software Engineering Consultant at Gridata, Inc.

September 2010 - May 2011 (8 months)

Helped write software to manage data and application communication of a "smart" home energy system. Applications communicate using QDBus / D-Bus, sending Qt data values such as QString, QVariantList, QVariantMap.

Wrote a test driver for the system that uses XML input files to drive the commands that are executed and to compare against expected results. Input XML syntax allows for the storing and retrieval of values, looping, logging and other minimal language-like features.

Work was done in C++, using Qt, on Ubuntu and MeeGo.

Software Engineering Consultant at Terative, Inc.
February 2010 - March 2010 (1 month)

Implemented a new Swing L&F (Look And Feel) and some custom widgets/components for an existing network management application. Work was done using Java JDK1.6 and Swing, with Eclipse3.5.

Software Engineering Consultant at Opsware Inc.
March 2007 - June 2007 (3 months)

Helped develop a small part of the GUIs for their SAS (Server Automation System) product. The SAS application is used to manage software and operating systems on large numbers of distributed remote devices. Work was done using Java, Swing, JGoodies, and JIDE widgets.

Software Engineering Consultant at EWT, LLC
November 2004 - May 2006 (1 year 6 months)

Rapidly prototyped and developed many different highly customized GUIs to control proprietary high frequency trading strategies. Financial instrument information displayed included: Bond prices/yields/ spreads, Option positions and quotes, Spreads, Swaps, Currencies, FX, etc. Work was done using Java and Swing.

Wrote a set of GUI components and layout managers with unique resizing behavior that allowed the same GUI to work on a tiny PDA screen or a huge plasma screen. Work was done using Java and Swing.

Wrote a completely customizable trading GUI that allowed the user to create a GUI by adding, removing, and customizing individual components almost like a generic GUI builder works.

Wrote a tablet computer based GUI that replaced traditional "pitcards". This GUI is now used by the company's traders on the floor of the New York Mercantile Exchange.

(EWT and Madison Tyler were different parts of the same organization, which became Virtu Financial.)

Work was done using Java, Swing, Linux, Windows, Cygwin.

Software Engineering Consultant at Madison Tyler, LLC
November 2004 - May 2006 (1 year 6 months)

Rapidly prototyped and developed many different highly customized GUIs to control proprietary high frequency trading strategies. Financial instrument information displayed included: Bond prices/yields/ spreads, Option positions and quotes, Spreads, Swaps, Currencies, FX, etc. Work was done using Java and Swing.

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Work was done using Java, Swing, Linux, Windows, Cygwin.

Software Engineering Consultant at Tapestry

July 2004 - August 2004 (1 month)

Wrote PHP modules to do SEO (Search Engine Optimization) of web pages on the Developers.net website. The modules were written in PHP and used the Drupal platform and content management system. The SEO modules allowed the editing and dynamic insertion of SEO text to be separated from the administrative tasks of creating and maintaining the Developers.net website.

Tow Pilot / Aerobatic Glider Ride Pilot

July 2000 - May 2003 (2 years 10 months)

Worked part time as a tow pilot and aerobatic glider ride pilot. Also taught cross country soaring in the Sierra Nevada mountains.

Software Engineering Consultant

November 2000 - February 2002 (1 year 3 months)

Wrote a Swing application that manages application server property/configuration files for WebLogic, JBoss, and the AltoServer EJBs. Work involved writing GUI utilities to simplify development and using JDOM to manipulate XML files. Used Ant for the build system.

Reviewed current AltoStudio GUI for JSP page editing, gathered feedback, and wrote documents and GUI mockups for AltoStudio 2.5. (AltoStudio is an IDE for creating J2EE web applications.)

Documented design of AltoStudio 3.0. Created GUI mockups for design and use-case documents.

Work was done using Java, Swing, Linux, Windows, Cygwin.

Software Engineering Consultant at Lutris Technologies

December 1999 - April 2000 (4 months)

Helped design and develop two web applications/applets for doing network monitoring and management for Manage.com and Peakstone. Wrote highly customized, very graphical, applet control panels for both web applications using AWT. Wrote a server side graphing package based on the KLG toolkit.

Work was done using Java, AWT, Swing, Linux.

Software Engineering Consultant

October 1998 - December 1999 (1 year 2 months)

Wrote the technical portion of the company's business plan.

Helped the two non-technical founders pitch the idea to venture capitalists. We got eMedius its first two million dollars of funding, and got eMedius accepted into Garage.com.

Senior Software Engineer

September 1998 - September 1999 (1 year)

Helped design and develop a Java application for Kinko's called ScanToWeb that lets their branches scan in customer photographs and host them on the web. Work was done using AWT on Apple computers.

Helped design and develop a Java application for Kinko's called PerfectBind that lets their branches bind paperback books. The application used a simple animation to help the Kinko's worker visualize how the customer's document would be scaled to fit the available paper and cover sizes using different printing techniques. Work was done using AWT on Apple computers.

Designed and helped develop a Java GUI for AmplifyNet's iSurfRanger bandwidth management product. The GUI was based on JDK1.2 and JFC/Swing.

Designed and helped develop a Java program to monitor Kinko's branch orders submitted via email. The highly configurable system nagged branches at different intervals about unread email using a voice mail system. Almost Orwellian.

Work was done using Java, Swing, Linux.

Software Engineering Consultant

June 1997 - June 1998 (1 year)

Developed a Java graphing package used to display network metrics. The graphing package was based on KLG's JClass Chart toolkit, JDK1.1, and JFC/Swing.

Developed a scripting test bed for regression testing of the graphing package within different browser and JDK environments. Test bed could be run as a standalone application or as an applet that used RMI.

Investigated and wrote test code for Java based client/server communication using Serialization, RMI, Sockets, and JNI.

Ported a Motif graphing library to Java and made it capable of displaying Japanese characters.

Work was done using Java, Swing, HP-UX, Unix.

Software Engineering Consultant

August 1997 - August 1997 (less than a year)

Advised software developers on how to internationalize/localize a Microsoft Windows application under Windows95/NT.

Software Engineering Consultant at Otsuka Pharmaceuticals

August 1997 - August 1997 (less than a year)

Advised Oncology Product Development group on website and collaborative document issues.

Developed part of Oncology Product Development's website which included monthly reports, project schedules, team member and study site contact lists, useful bookmarks, employee photos, and site maps.

Software Engineer

November 1996 - May 1997 (6 months)

Helped design and develop an Internet based supply chain application. Designed the GUI and developed it
using Java, Netscape's IFC (Internet Foundation Class) toolkit, and Microline's View Toolkit.
The entire application made heavy use of threads and Tibco's Rendezvous for asynchronous communication
using publish/subscribe techniques.
Work was done using Java, Swing.

Software Engineering Consultant at Network General

June 1996 - August 1996 (2 months)

Developed a prototype GUI for an application that will let Internet Service Providers and Web Content
Providers identify and diagnose service problems on the Internet. The GUI was written entirely in Java using
JDK1.0.2, the Java AWT, Visualize Toolkit, and Microline Component Toolkit. Work was done offsite using
the Internet and a laptop with a Ricochet radio modem. (Very 90's, yes?)

Software Engineering Consultant

February 1995 - July 1996 (1 year 5 months)

Wrote a thread manager and thread tester to debug Java threads and synchronized methods using JDK1.0 and
JDK1.0.1.
Helped develop an OCX (OLE Control) which would allow Visual Basic applications to display and control
a "LIMS" application used for environmental and drug testing. The OCX was a complete MFC application
on its own, and had a Document/Frame/View architecture. The entire product consisted of a set of Visual
Basic panels as the primary GUI, and the "invisible at runtime" OCXs used by the Visual Basic application.
Most of the development I did was on WindowsNT 3.51 and 4.0, with a little under Windows 3.1 and
Windows95.
Prototyped an RPC interface to a UNIX/Oracle/Motif application so that it could be controlled by Microsoft
Windows applications.

Software Engineering Consultant

November 1993 - November 1995 (2 years)

Designed and developed a GUI and a library of Motif/C++ and database objects used to create/edit an airline
waypoint and route database.
Wrote a crude prototype object-oriented database to be used for demonstrating the GUI to the FAA.
Restructured existing ground to airplane GUI code to make it more object-oriented, and changed panel layout
to make it more user-friendly.
Designed and developed a prototype GUI for a multi-state real estate database conversion program.
Helped Seagull engineer track down and fix a memory corruption bug and a memory leak in their software.

Software Engineering Consultant

November 1991 - August 1994 (2 years 9 months)

Designed and developed a Motif based object-oriented GUI toolkit in C++ for use by other engineers to ease
GUI development and enforce a consistent look and feel over many products. The toolkit contained standard

field classes such as integers, floats, strings, toggle buttons, menus, lists, and tables. It also contained various panel classes in which the engineer would put these fields. The panels contained error/status and help lines, and a set of standard buttons with default actions. The field objects had error checking callbacks built-in, and would automatically display error messages when the user tried to enter or "OK" an illegal value. Each field had a customizable help message that was displayed as the field got the focus or as the user moved the mouse over the field. The toolkit has some really slick features.

Helped design, prototype, and develop a large Motif and Oracle based object-oriented application to manage drug stability testing using my toolkit in C++.

Software Engineering Consultant and Employee
June 1990 - November 1991 (1 year 5 months)

Designed and developed a crude object-oriented prototype of a Data Inspector in C++ and XView. (A Data Inspector is a GUI used for looking at data and its relationships with other data. e.g. A structure that is part of a linked list.)

Wrote requirements documents for the debugger's GUI and the language it would use to communicate with the underlying debugger. Led weekly meetings to gather input and reach consensus on these documents.

Helped design and develop a small part of the graphical user interface for SPARCworks2.0's C, C++, and FORTRAN debugger "dbxtool".

Tested, and wrote small multi-tasking Ada test programs for, the SPARCworks Ada programming environment's debugger.

Software Engineering Consultant
August 1989 - June 1990 (10 months)

Ported from X10 to X11 and debugged: a large plotting package used for chemical analysis, and HP's Xray widget/gadget set, the Xray GUI builder.

Wrote window manager communication routines so panels would work with the window manager intelligently.

Developed a tool for monitoring and debugging memory allocation.

Work was done using C, HP-UX, X Window.

Software Engineering Consultant
April 1989 - August 1989 (4 months)

Helped develop the OpenLook window manager for MIT's X11/R4 release. The OpenLook window manager is ICCCM compliant. Developed under X11/NeWS.

Converted Prior X11/GKS to work on X11/NeWS.

Ported VE's Visual:GKS from SunWindows to SunView.

Software Engineer/Project Lead at The Santa Cruz Operation (SCO)
May 1988 - April 1989 (11 months)

Oversaw engineering development and support of SCO's X11 product, Xsight. (Xsight is the X server of Open Desktop.)

Oversaw integration of Locus's X11 server development with SCO's TCP/IP and Xenix to make Xsight.

Responsible for tracking Xenix kernel bug fixes and TCP/IP bugfixes that affected Xsight, and for tracking bugfixes for Xsight itself.

Developed a set of tutorial programs to teach Xlibrary programming.

Gave classes and tutorials on the X Window System, Xlibrary programming, and programming using toolkits and widgets.

Ported the Dec widgets and HP widgets, and wrote example programs using these widgets and the HP window manager. (OSF's Motif is a combination of these.)

Worked trade shows to set up software for SCO and its OEMs, demonstrated Xsight to customers, and babysat alpha software.

Assisted Documentation group with release notes.

Ported Sun NeWS to Xenix's event driven mouse and keyboard driver.

Research Engineer/Scientist

January 1986 - April 1988 (2 years 3 months)

Researched and developed software for several projects in artificial intelligence, computer vision, graphics, and signal interpretation. Work was done under VMS and Unix.

Developed fuzzy logic software to locate, extract, and describe features in photographs taken from aerospace vehicles.

Developed software to do signal segmentation, description, and identification using computer vision methods and linear and nonlinear neural net techniques.

Developed a plotting package and its GUI on Sun workstations using SunWindows, SunView, and an Ingress relational database.

Developed software to do Kalman filtering of navigational data from devices such as GPS (Global Positioning System), INS (Inertial Navigation System), and LORAN (LOng-RAnge Navigation).

Education

Arizona State University

Bachelor of Science (B.S.), Computer Science, School of Engineering, 1981 - 1985

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Linked in

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