## John Buczkowski

12 Acadia St.

South Boston, MA 02127

Office: 617-268-8449

Cell: 617-435-8115

Email: jxb@tiac.net

# Technical Summary

Twenty plus years programming and design experience with an emphasis on interactive

graphics applications and software run-time performance.

**Languages** C#,C++, C, JQuery, JavaScript, Java, Python, VB .Net, VB, Java, 8086 Assembler, SQL

**Environments** .Net,MS-Windows, Linux, Unix, Web, IBM PC/MS-DOS, OS2/PM

**Databases** MS-SQL, PostgreSQL, Oracle, Cassandra, MySql, Microsoft Access, QuickBase, Kintera

**Technologies** .Net, SignalR, WPF, WCF, LINQ, WinForms, HTML5, AJAX, CSS3, D3, ASP .Net, MVC, MVVM,

Entity Framework, Hector, FluentCassandra, Achilles, Flex 4.0, SOAP, XML, Sitecore,

ADO .Net, SSRS, ODBC, COM, ADO, MFC, Infragistics, DevExpress, Telerik, Aspose, Boost,

OpenCV, Knockout, HTML 5, Zurb, NpgSql, Swagger, Hangfire

# Independent Consulting

*Flores & Associates ,Charlotte,NC*

*10/16 – Current*  Architected a .Net based system for generating plan analysis and auditing routines on a time scheduled

basis. Migrated pre-existing VB based analysis functionality to several C# based web services using

.Net Core and Swagger. Designed and delivered a .Net WPF MVVM Dashboard for managing daily

workflow, viewing and manipulating generated audit analysis.

*Block Engineering,Marlborough, MA*

*07/15 – 11/16*  Designed and implemented a Windows/C++ based web service for managing lasers used for detecting

and measuring gas densities. Created an HTML/Knockout JS based web client embedded in a QT Web

component for display gas analysis results.

*Affectiva, Waltham, MA*

*11/14 –05/15* Designed and implemented a Windows C++ SDK to expose Affectiva’s underlying science libraries

which are used for analyzing facial features and classifying emotions . Created a .Net CLI/C++ library

to expose the managed SDK to .Net clients. Implemented AffdexMe, a WPF application which tracks

facial feature points and provide emotional recognition and feedback.

*Advanced Traceability Solutions, Portland, ME*

*07/14 –05/17* Created a series of ASP.Net pages and WCF web services used in ATS’s Food Traceability Software

product, Trac Suite. The software is used to provide field to table traceability of produce and livestock.

Architected and developed WCF web services and accompanying WinForms frontend for recording and

managing weights received from a series of COM port based industrial scales.

*Software Products Group., Watertown, MA*

*07/14 –10/14*  Designed and implemented WCF web services used in the process of testing and analyzing

electrical power systems. Created an ASP.Net based testing framework used for integration testing

across all services in the system.

*Philips Medical., Andover, MA*

*02/14 – 07/14*  Researched and implemented a real time framework for exchanging patient incident data between

medical devices and an ASP .Net based client application. The .Net framework was built using

Microsoft’s Signalr technology.

*HighRoads, Inc., Woburn, MA*

*06/13 – 01/14*  Created WCF based services for a series of health insurance coverage cost analysis calculators.

The .Net based calculators utilized Aspose components in the calculation engine implementation.

*C.R. Bard, Inc., Lowell, MA*

*12/12 – 6/13*  Researched and prototyped a POC for a template based report design and viewing system for the

company’s new .Net WPF based clinical recording system. Designed and implemented the subsystem

from the POC stage through to an actual product. Integrated the component with the existing system

architecture using WCF.

*Concord, Hopkins, MN*

*11/12 – 12/12* Member of a small team that ported the Java based Hector Cassandra client library to run in a .Net

environment.

*Managed Audience Shared Solutions (Mass Exchange), NY, NY*

*09/12 – 10/13*  Prototyped, designed and created a web based UI for an online exchange service used

for the buying/selling of internet and media ad space inventory. The frontend was developed in

HTML5/CSS3 and D3, with underlying support in javascript/jquery. The middle tier was built on the

Spring framework, while the backend was written in Java and utilized a MySQL database.

*EMC Corporation, Hopkinton, MA*

*09/12 – 11/12* Worked with EMC and their client to investigate, analyze and identify runtime issues with the client’s

native C++, QT Framework based legacy application.

**Co-Founder** *Cloud Event Processing, Minneapolis, MN*

*11*/09 – 9*/12* Architected a suite of front end visualization tools and middle tier for CEP's flagship Complex Event

Processing platform, "DarkStar". Tools included the "Surveillance Analyst Workstation" (SAW) – a

.Net/winforms based data mining and visualization tool and "Telescope" - an interactive

WPF based query construction platform and visualized results viewer. Designed a .Net based

service layer for querying Cassandra based real time big data. Technologies include .Net, C#,

WinForms, WPF, WCF, Flex 4.0, Action Script, Oracle, Cassandra, Aquiles, RabbitMQ.

*L1-Identity Solutions, Billerica, MA*

*09*/10 – *03/11* Designed and implemented program features for the state of Maine’s license processing system.

Work required knowledge of WCF, ASP .Net, SQL Reporting Services technologies.

*Explorica Inc. Boston, MA*

*04*/10 – *09/10* Designed and implemented enhancements to Explorica’s student tour booking system.

Added new ASP .Net based functionality for both internal and publicly faced projects.

*Interval Data Systems, ,Waltham, MA*

*10*/07 – *10/11* Designed and implemented .Net based applications and utilities for IDS’s flagship energy

analysis product, Energy Witness. The projects included: a utility billing management system

in addition to several tools for managing and analyzing historical energy data. The

implementation required extensive knowledge of C#, .Net , SSRS, and complex SQL.

*Class Four Technologies, ,MA*

*05*/09 – 07/09 Added functionality to a client’s internal billing and shipping management system. The

system was an ASP .Net based, database-driven intranet application written in VB.Net with

a SQL 2008 backend.

*Kaskad Technologies LLC, Boston, ,MA*

12/06 – *07/07* Designed and implemented a windows based GUI front end for Kaskad’s rule based securities

trading surveillance system. Worked closely Kaskad’s primary client, the Boston Stock

Exchange (BSE), developing requirements and specifications. The project involved heavy use

of C#, VB .Net, Infragistics controls, Oracle and Crystal Reports XI.

*NetCommissions,Woburn, ,MA*

08/06 – *02/08* Designed and implemented web pages for the company’s customizable internet based sales

compensation packages. Work involves use of C#, ASP .Net (1.1/2.0), ADO .Net and SQL.

*Mathsoft, Cambridge,MA*

04/06 – 07/06 Identified and corrected floating point calculation issues existing in managed and unmanaged

code that were uncovered in MathCad’s migration to .Net 2.0. Wrote a .Net CLR profiler to

track machine register states in MathCad’s calculation engine during transitions between

managed and unmanaged code.

*The Data Collaborative, Arlington, MA*

02/06 – 03/08 Member of small consulting team that designs and implements a variety of desktop and web

enabled software solutions for non-profit agencies. Work involves use of VB, MS Access,

XML and SOAP in addition to the proprietary database packages QuickBase and Kintera.

*Vivox, Framingham, MA*

12/05 – 03/06 Designed and implemented UI components for Vivox’s new Instant Messaging package.

Work involved extensive use of C#, Infragistics controls, Win Forms in addition to a

working knowledge of Microsoft’s RTC architecture.

*Wintellect.Knoxville, TN*

05/05 – 01/06 Member of the Extreme support team providing a high level of technical support to clients.

Primary focus of support was resolving issues regarding .Net, COM Interop, and porting Win32 legacy applications to run in a .Net environment.

*SkillSoft Inc., Nashua, NH*

04/05 – 11/05 Performed maintenance and enhancements to SkillSoft’s web-based online course player.

Tasks involved a working knowledge of Java, JavaScript on a variety of Java Runtime Environments across Internet Explorer, Netscape, Mozilla and FireFox browsers.

*Information Resources Inc., Waltham, MA*

05/04 – 05/05 Designed and implemented C# based wrappers for the company’s pre-existing, proprietary

Win32 based COM objects. The solution was architected so that the COM objects could be

seamlessly accessed in new .Net assemblies without affecting their usage in Win32 based

applications. Work required extensive knowledge of .Net COM Interop, data marshalling,

C# and COM.

*Fidelity Investments.,Boston, MA*

12/02 – 02/04 Performed maintenance and enhancements to Active Trader Pro, Fidelity’s Microsoft

Windows on-line, desktop based investment tool. The work required a thorough

understanding of COM, ATL, ADO, and SQL to add new features and fix software defects.

Identified, analyzed and improved severe performance bottlenecks in critical sections of the product’s load-time and run-time. Dramatically reduced the product’s overall memory footprint.

*Incentive Systems Inc., Bedford, MA*

12/98 – 05/04 Designed and implemented a proprietary ODBC Driver for Incentive, an industry leading,

software based, sales plan compensation tool.. The work involved gaining an intimate

understanding of Incentive’s Data Model, the Open Database Connectivity (ODBC)

standard and how external third party software used the ODBC interface to insert and

retrieve data from Incentive.

Completed enhancements to the core product’s database layer and calculation engine.

Analyzed and re-architected critical sections of the code base to alleviate major performance

deficiencies throughout the entire product.

Used XML to implement a utility for data migration between different versions of Incentive

database schemas. Designed and implemented a delimited text based import facility to load

and translate customer data to Incentive’s object model.

*Information Resources Inc., Waltham, MA*

11/99 – 10/01 Designed and implemented new features for Apollo 8.0. Analyzed and

re-architected significant portions of the product to achieve dramatic run-time

performance improvements. Supported and enhanced Apollo’s ODBC interface for

MS-SQL, Oracle, DB2 and MS Access.

6/98 – 3/99 Designed and implemented UI enhancements for Apollo 7.0, a Win32 based retail space

management product. Improved product load time performance significantly.

*Bachman Information Systems, Burlington, MA*

1/95 – 6/95 Re-architected existing Excelerator to Bachman translation facility to run with new export

formats of Excelerator for Microsoft Windows 3.1. Designed and developed a graphical user

interface (GUI) for the product to run under Microsoft Windows 3.1.

# Employment History

**Principle Software Engineer** *Lotus Development Corp., Cambridge, MA*

1/98 – 6/98 Coordinated integration between shared components and Lotus Suite. Implemented

performance optimizations, usability improvements and resolved client issues.

6/97 – 12/97 Designed and implemented Java based UI Components for the IBM NC-Desktop, a diskless

browser based PC designed to simulate users’ personal desktops via remote network or

internet connections.

4/96 – 5/97 Designed and implemented Lotus 1-2-3’s data translation utility for reading and writing

non-native files. Formats included previous versions of 1-2-3, Microsoft Excel and text

delimited files. Optimized load time and performance critical sections of the base 1-2-3

product.

1/95 – 3/96 Performance tuned shared components for Lotus applications under MS-

Windows. Optimized components by reducing the load size and increasing run time

performance. Specific tasks involved analyzing working set and runtime characteristics using

the Working Set Tuner (WST) and Call Attribute Profiler (CAP). Using the results of the

analysis, redesigned performance critical routines and subsystems.

**Team Leader** *Lotus Development Corp., Cambridge, MA*

1/95 – 6/96 Developed multi-platform UI software for Lotus Applications.

Member of the User Interface Management System team that designed and implemented

common UI features for Lotus applications to run on multiple platforms including: Win16,

Win32, OS2 and the Macintosh. Specific duties included being team leader for a group of

engineers that ported UI functionality from MS-Windows to run under the OS2 Presentation

Manager.

**Senior Software Engineer** *Lotus Development Corp., Cambridge, MA*

8/91 – 5/94 Developed multi-platform UI software for Lotus Applications.

Member of the core GUI tem that supported the existing UI in addition to designing and

implementing new features in 1-2-3for windows. Created the transcript facility for recording

macros and user interactions during active 1-2-3 sessions. Integrated this facility with the

current 1-2-3 architecture. Maintained and modified a graphics compiler used for compiling

1-2-3 specific resource statements into Windows resources using LEX and YACC.

Participated in improving overall product performance and minimizing the runt time

memory footprint.

**Software Engineer** *Index Technology Corp., Cambridge, MA*

10/85 – 5/91 Designed and implemented software for Excelerator, a leading CASE tool for IBM PCs.

Lead engineer for interactive graphics based editors for a new version of Excelerator for

Microsoft Windows 3.0 OS/2. Designed and implemented a new graphics based drawing

tool. Work required extensive use of the Win 3.0 SDK, and the OS2 PM. Designed and

completed enhancements to the graphics facility for a legacy DOS product Added new

features and color graphics support to a previously monochrome system. Tasks included

device driver coding, large scale optimization and resolution of database issues.

Created requirements, specifications and high level design of new graphics facility.

Designed and built prototypes for PC MS/Windows 2.1. Designed and implemented new

graphics features specific to the Apollo workstation version. Ported existing facilities from

PC/DOS environment to the Apollo and Sun workstations, Vaxstation and VAX 11/780.

# Education

**M.S., Computer Science** Northeastern University, Boston, MA

June 1989 *Concentration: Artificial Intelligence*

**B.S., Computer Science N**ortheastern University, Boston, MA

September 1986