

# John Yanarella

Software Architect / Senior Flex Consultant



**CERTIFIED EXPERT**  
Flex® with AIR

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## Objective

To apply software architecture and engineering skills to the development of Adobe Flex, Flash and AIR applications in a team environment.

## Availability

Available for full-time employment or new contracts starting March 2010.

## Experience

**Freelance Software Architect, Senior Flex Consultant** (2009-Present)

*CodeCatalyst, LLC on behalf of Universal Mind, Inc.*

### Technologies:

Adobe Flex, Adobe AIR, Java, Spring

### Development Tools:

Adobe Flex Builder, Eclipse, NetBeans, IntelliJ IDEA, MySQL, SVN, Maven, Git

### Platforms:

Windows, Mac OS X

Economic Demand Response - EnerNOC

- Participated in the development of customer facing dashboard application to support EnerNOC Demand Response, a solution where managed facilities are paid for reducing their energy usage during periods of peak demand so that utility customers get access to clean, reliable capacity where and when it is needed most.
- Leveraged and extended Adobe Flex, Flex Unit 4 and the Mate framework to support project needs.
- Created reusable section / screen navigation and notification logic.
- Developed general purpose hierarchical list iteration, recursion and calculation functionality to support unique client-side calculation requirements.
- Created pixel-perfect GUI realizations of Universal Mind UX Team graphic designs through extensive use of Degrafa and CSS.

Lottery Services Portal - GTech Corporation

- Participated in the development of an enterprise Flex application for the leading lottery technology and services company in over 50 countries.

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- Coordinated with Universal Mind's user experience (UX) team to realize UX-driven graphic designs within GTech's development team's existing code.
- Mentored GTech's development team on the use of Degrafa, a declarative graphics framework for Flex.

### Symmetry Partners Platform - Symmetry Partners

- Participated in the development of an enterprise Flex application targeting financial advisors and supporting the unique needs of Registered Investment Advisors (RIA).
- Leveraged and extended the Mate framework to support project needs.
- Developed custom 'behaviors' to support aspect-oriented extensions to standard Flex components, adding features such as collapsible components, form invalidation detection, and serialization of container state to and from XML.
- Architected and implemented a tag-based permission system for Flex driven by Spring Security to dynamically enforce availability of user interface components and associated logic.
- Implemented a rich calendar UI for managing and visualizing recurring events, leveraging the IBM iLog Elixir components.
- Integrated with LaserApp Web Services to support dynamic generation of financial brokerage and securities forms.

### Principal Software Engineer (2008-2009)

#### *Universal Mind, Inc.*

##### Technologies:

Adobe Flex 3.0, Adobe AIR 1.0 / 1.5, Java, J2EE, Apache Tomcat, JBoss

##### Development Tools:

Adobe Flex Builder, Eclipse, SVN, CruiseControl, FogBugz

##### Platforms:

Windows NT/XP, Mac OS X

### SpatialKey

- Participated in the development and maintenance of a next generation Information Visualization, Analysis and Reporting System built in Adobe Flex 3.0.
- Developed administrative features for managing users, groups, data sets and reports.
- Created custom components and skinned the application to match mockups created by a UX designer.
- Developed integration tests to validate the services API and client / server data communication.
- Architected and implemented a tag-based permission system to dynamically enforce availability of user interface components and options.
- Architected and implemented a local object relational data cache and refactored the data layer to clarify purpose, eliminate replicated code and improve maintainability.

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### Behr

- Performed an off-site code review and audit of a paint exploration Rich Internet Application built with Flex 2.0.
- Assisted the client in planning and assessing the requirements for porting their codebase to current standards and tools.

### Hasbro - Helios

- Participated in the development of a product-centric content management system used worldwide to capture locale-specific product metadata.
- Coordinated with client stakeholders, client developers and a UX designer to gather and define project requirements.

### Johnson & Johnson - TouchPoint

- Developed a prototype of an AIR application for presenting SWF and PDF based pharmaceutical marketing materials on Tablet PCs; including features such as drawing tools, attendee tracking and attendee response capture.
- Developed an API for third-party creation of participant aware and interactive Flash and Flex-based presentation content for use with the presentation tool.
- Architected a deployment system for distributing marketing materials to occasionally connected Tablet PCs.
- Implemented custom components for integrating legacy FlashPaper and SWF content with Flex 3.0 / AIR, including cross VM event-based communication.
- Researched and implemented a workaround to support Flash-based drawing over PDF content in AIR.

### AGCO

- Assisted in the development of a Rich Internet Application that provides real-time and historical geo-spatial visualization and reporting for AGCO agricultural equipment.
- Created custom skins for views and components using Degrafa to match design mockups provided by a UX designer.

### SAP

- Developed a library to allow for easy client-side PNG, JPG snapshots and PDF generation from any collection of Flex UI components or containers at arbitrary DPI and page sizes.
- Developed and supported custom user interface components, including custom Tree and PivotGrid components.

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**Freelance Senior Flex Consultant (2005-2008)**  
*CodeCatalyst, LLC on behalf of Universal Mind, Inc.*

Technologies:

Macromedia Flex 1.5/2.0, Adobe Flex 3.0, Adobe AIR, Java, J2EE, JRun, Apache Tomcat

Development Tools:

Macromedia Flex Builder, Adobe Flex Builder, Eclipse, SVN, CruiseControl, Trac

Platforms:

Windows NT/XP, Mac OS X

MapQuest - MapMyPix / TripPix

(featured at: <http://www.universalmind.com/#/capabilities/demos/trippix>)

- Participated in the development of an AIR application (MapMyPix) that allows users to geocode photos from a digital camera manually or based on data from a handheld GPS device, and publish a map-based slideshow to share with friends and family.
- Developed custom utility code for easily chaining asynchronous operations and managing SQLite transactions in the beta release of AIR 1.0.
- Assisted in a subsequent revision and relaunch of the original proof-of-concept as a new application (TripPix), redesigned with a refined focus on the user experience.
- Collaborated with a UX design firm on the creation of user interface wireframes.
- Designed the final application appearance, icons, skins and views.
- Implemented custom visual effects to improve user experience and usability.

ESRI - LaunchPad

- Participated in the development of a Rich Internet Application prototype to demonstrate geospatial and temporal visualization using the ESRI ActionScript API.
- Integrated simulated real-time data feeds via FDS (aka LCDS).

AOL xDrive

- Participated in the development of a Rich Internet Application that allows users to upload, manage, and share media assets on the AOL xDrive platform.
- Developed a lightweight embeddable video player in ActionScript and Flash to replace a Flex-based implementation in order to meet client SWF file size requirements.
- Developed custom components and extensions to the standard Cairngorm framework, customized third-party components and implemented Flex framework enhancements to support project and client developers' requirements.

Pillar Data Systems

- Assisted in user interface enhancements, including new custom component development, for a software support center application.
- Provided on-site support for Flex issues.

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### Viziant

- Participated in the development of the user interface for a Rich Internet Application proof of concept focused on data mining with rich data visualization features.
- Created custom components and cell renderers.

### Cisco Systems

- Performed onsite mentoring for new Flex developers on topics such as FDS (aka LCDS), form interaction with FDS Data Services, custom component creation, error handling and logging techniques.
- Assisted with integration of these techniques into an existing prototype.
- Demonstrated integrating and communicating with Java applet content within a Flex application via an IFrame overlay technique and JavaScript.
- Collaboratively architected a solution for a project that requires dynamic client user-interface construction based on metadata pushed by the server.

### George Weiss Associates

- Developed a test harness application to determine the viability of rendering rapidly updating data within standard and custom Flex UI components and to demonstrate RTMP messaging using FDS (aka LCDS).

### Arc Worldwide

- Assisted a team of Flex developers on a project to convert a kiosk-style paint exploration Rich Internet Application from a Lazslo based implementation to Adobe Flex 2.0.
- Ported a Flex 1.5 prototype using Cairngorm 0.99 to Flex 2.0 and Cairngorm 2.0.
- Reviewed custom component code and provided guidance and code examples demonstrating the use of the Cairngorm framework.
- Assisted with development environment concerns, such as deploying Flex 2.0 applications on Apache Tomcat, and integrating a Flex Builder 2.0 project with a Maven project structure.
- Identified and demonstrated a solution for generating code for ActionScript Value Object classes from Java Bean classes.
- Developed a runtime localization solution for Adobe Flex 2.0.
- Architected and developed a prototype of a page management and animated page transition framework.

### J. Walter Thompson - FordVehicles.com

- Performed an on-site code review and audit to validate an automobile showcase Rich Internet Application implemented with Macromedia Flash MX 2004 and Microsoft .NET Web Services.

### Star Exhibits - Pella IMS

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- Participated in the development of an inventory management Rich Internet Application using Macromedia Flex 1.5.
- Worked remotely with a geographically disparate team of three developers and an architect.
- Implemented inventory item definition, store inventory allocation and transfer screens from mockups, working within the Cairngorm framework.
- Developed custom Flex user interface components and cell renderers.
- Introduced and configured an automated build process using CruiseControl.

### Nationwide Insurance - Agent Gateway

- Participated in the development of a Rich Internet Application that allows insurance agents to gather customer information necessary to provide and process insurance quotes.
- Mentored J2EE developers as they developed and debugged their first Flex code.
- Participated in the development of the Flex client layer of a unique framework implementation architected by Adobe Consulting.
- Developed several custom Flex user interface components and cell renderers.
- Implemented Apache ANT build scripts for producing SWC and SWF files.
- Built a custom wrapper for the MXML command-line compiler to work around limitations and support project requirements.
- Contributed to the development of an event recording and playback solution for automated Flex user interface testing.

### Remedy MD - Patient Dashboard

- Participated in the development of a Rich Internet Application that allows doctors to review patient information in a customizable dashboard.
- Developed custom Flex components for dynamically creating custom views in 'pods' which can be arranged via drag and drop in 'pod clusters' and subsequently serialized in XML and persisted so that the dashboard could be restored to its original state on the user's next visit.

### Fleetwood RV - Inventory Management System

- Provided on-site support for Flex issues, authentication, security and performance concerns.
- Mentored developers on techniques for effectively using the Cairngorm framework.

### Concerto / Aspect Software - Contact Center Solution

- Provided on-site support for Flex issues and performance concerns.
- Debugged Flex framework bugs and quirks and provided workarounds (ex. 32k limit issue, menu bar and window z-order).
- Demonstrated form handling techniques, such as 'dirty field' handling and form validation techniques that would integrate with the client's custom localization framework.

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- Developed custom Flex user interface components (custom tab navigation bar, numeric stepper control).
- Customized standard Flex components to add necessary features (ex. double-click support, secondary column sorting in DataGrids).
- Resolved several Flex performance issues related to handling extremely large data sets.

### **Flex Developer (2004-2005)**

*WhittmanHart Interactive*

#### Technologies:

Macromedia Flex 1.5, Java, J2EE, BEA WebLogic, Scene7

#### Development Tools:

Flex Builder, BEA WebLogic Workshop, CVS

#### Platforms:

Windows NT/XP, Solaris

- Participated in the development of a Webby Award-winning Rich Internet Application, the Sherwin-Williams Color Visualizer, that allows users to browse and search paints and interactively apply those paints to interior and exterior scenes using a drag-and-drop interface.
- Developed custom controls and user interface 'skins' for Macromedia Flex for unique project requirements, such as color swatch and color palette controls and drag and drop scene rendering backed by Scene7.

### **Consultant, Senior Software Developer / Team Lead (2001-2004)**

*Exstream Software, Inc. (acquired by Hewlett Packard, Inc.)*

#### Technologies:

C++, Java, J2EE, JNI, ASP, HTML, CSS, JavaScript, XML, XSL/XSLT, XSL-FO, MXML, ActionScript, Macromedia Flex, Macromedia Flash, SQL, Oracle, MS SQL Server, IIS, Apache Tomcat, Orion, IBM WebSphere, WebSphere MQ (MQ Series, SunONE Application Server, SunONE Message Queue, BEA WebLogic

#### Development Tools:

Visual Studio, Visual SourceSafe, Sun Workshop, GCC, Eclipse, Macromedia Flex Builder

#### Platforms:

Windows 9X/NT/XP, Sun Solaris, HP-UX, AIX, MVS

Dialogue Anywhere

- Participated in the design and development of a new product offering, a web-based design client that allows marketing users to manage Dialogue Design Database content.

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- Co-developed an extensive desktop-style Rich Internet Application using Macromedia Flex.
- Participated in the Macromedia Flex (Royale) beta program.
- Participated in early design discussions and created initial user interface mockups, screen designs and icons.
- Contributed to an effort to modernize the Dialogue user interface, pursuing a consistent look and feel between existing client applications and the new rich internet design client.
- Designed and developed custom user interface 'skins' for Macromedia Flex.
- Developed custom controls for Macromedia Flex, most notably a WYSIWYG HTML-based rich text editing control.
- Created a localization solution for Macromedia Flex 1.0.

### Dialogue Design Services

- Participated in the development of a new product offering, a SOAP / web-services interface for managing Dialogue Design Database content.
- Co-developed a thread-safe DLL implementing all web service accessible operations in C++ and their corresponding C++/Java integration entry-points.
- Participated in refactoring the Dialogue design client code to produce a thread-safe DLL implementation of the Dialogue data and persistence layers.
- Designed a co-developed a utility used internally by the company to generate C++ code for importing and exporting design component properties in XML.

### WebVerse

- Participated in the development and initial release of a new product offering, a rapid web application development tool that leveraged the company's existing high-volume personalized document production system (Dialogue).
- Served as team lead, coordinated development team effort and communicated project status to the VP of Software Development.
- Extended the page designer application to add input forms and form components.
- Developed an optimized thread-safe DLL implementation of the Dialogue Engine, specialized for producing HTML forms.
- Co-developed the J2EE Servlet-based web application runtime and component integration code.
- Assisted pre-sales and professional services efforts to develop demonstration web applications using the product.
- Produced and supported the 'Early Adopter Demo Kit.'
- Architected, documented and implemented customer-driven enhancements for subsequent point releases, such as support for custom form control plug-ins and file uploads.
- Contributed to the development of a flow-chart style process logic designer tool added in a subsequent release.
- Provided knowledge transfer and assistance to developers responsible for future maintenance.



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### WebSphere MQ Connector

- Developed and supported the WebSphere MQ Connector, a custom data provider plug-in (supporting Windows, Solaris, AIX and MVS) integrating the Dialogue document production engine with IBM WebSphere MQ (aka MQ Series) for on-demand personalized document generation.

### Java Enabler

- Architected, developed, documented and supported the Java Enabler, a custom data provider plug-in bridge between Java-based data providers and the C++ based Dialogue document production engine.
- Led a training presentation for the Java Connector for internal support and professional services staff.

### JMS Connector

- Architected, developed, documented and supported the JMS Connector, a custom data provider plug-in integrating the Dialogue document production engine with JMS Message Queues for on-demand personalized document generation.
- Led a training presentation for the JMS Connector for internal support and professional services staff.

### Dialogue

- Debugged and resolved software defects.
- Developed and presented a proof-of-concept for generating HTML (XHTML/CSS2) as an additional output format; assisted with subsequent development.
- Extended and supported the Dialogue Dynamic Data Access (DDA) architecture, a multi-platform API for creating custom data provider plugins for use with the Dialogue document production engine (supporting Windows, Solaris, AIX, HP-UX and MVS).

### Achieve

- Co-developed a web-based time tracking, project status and reporting intranet application called Achieve, used company-wide by employees for reporting time and by management to perform project reporting and cost analysis.

### Misc. Web Development

- Interfaced with the Marketing department and developed web content for the company website.
- Designed and implemented a dynamic menu Java applet used for navigation throughout the company website.

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- Designed and implemented an animated Macromedia Flash holiday card for customers, personalized and tracked via a SQL Server database, presented via the web and delivered by e-mail.

### **Lead Developer, Architect (2000-2001)**

#### *Miami University*

##### Technologies:

Allaire ColdFusion, HTML, JavaScript, SQL, PL/SQL, Oracle 8i

##### Development Tools:

Powersoft PowerDesigner, Macromedia Dreamweaver

##### Platforms:

Windows NT, Sun Solaris

- Architected the Miami University Training Registration and Information Network (TRAIN), a training course catalog and registration system.
- Discovered and documented client requirements.
- Created wireframes, designed mockups and developed clickable prototype.
- Led team development and managed project schedule.
- Defined coding standards, custom framework and components, and managed code quality through code reviews.

### **Freelance New Media and Web Application Developer (1995-2005)**

#### *as Creative Element, CodeCatalyst, CodeCatalyst, LLC*

##### Technologies:

C/C++, Java, HTML, CSS, JavaScript, IIS, Apache, MySQL, Oracle, CGI, Perl, ASP, ColdFusion MX

##### Development Tools:

Adobe Photoshop, Macromedia Dreamweaver, Macromedia Flash, Caligari trueSpace

##### Platforms:

Windows 9x/NT/XP, Mac OS X, Linux, VAX/VMS

- Created and maintained custom web content for academic and government institutions including Henry Clay High School, the Commonwealth of Kentucky Finance Cabinet, Miami University of Ohio, the Kentucky-Canadian Studies Association and the University of Kentucky.
- Designed, developed and maintained an online alumni registry system for the Miami University Alumni Department.
- Designed and developed a web-based e-mail client.

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## **Freelance Software Developer (2001-2004)**

*CodeCatalyst, LLC*

### Technologies:

C/C++, Java

### Development Tools:

Visual C++, Metroworks CodeWarrior, Borland IDE, Eclipse, CVS

### Platforms:

Windows 9x/NT/XP, BeOS, Mac OS X

- Developed and contributed to open-source, freeware and commercial software including general system utilities, image-editing software and network applications.
- Distributed and supported software applications via personal website and SourceForge.

## **Technical Support Intern (1997-2000)**

*Commonwealth of Kentucky Finance Cabinet*

### Technologies:

HTML, Javascript, Active Server Pages (ASP), Perl, Adobe Acrobat

- Designed and demonstrated an electronic distribution system for engineering bid packages, reducing duplication, shipping and storage costs.
- Collaborated in the specification of a database-driven web application to support building maintenance record keeping and architectural plan archival and search needs.
- Created and maintained websites for multiple state government departments.
- Provided technical support, installation and troubleshooting for Windows-based software, Gateway computers, Microsoft Exchange Server, and Novell Networking.
- Assisted in the state capital annex building network modernization project; transitioning from a Token-Ring to an Ethernet network.

## **Education**

Bachelor of Science in Systems Analysis (Computer Science)

Miami University (Oxford, OH)

## **Open Source Contributions**

- Swiz Framework - a Spring-like IoC container for Adobe Flex (Team Member)
- Hamcrest-AS3 - a general purpose matching framework (Contributor)

## **Referrals**

Provided upon request.