

# Chris Felknor

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## Summary

I am an Information Systems/eCommerce architect and developer, specializing in **Microsoft** technologies such as **.NET**, **ASP.NET**, **SharePoint**, **C#**, **Classic ASP**, **VB 6.0**, **COM**, **SQL Server**, **IIS**, **Windows XP**, and **Windows Server 2003**, as well as standard Internet technologies such as **HTML**, **XML**, **XSLT**, and **JavaScript**. I also have several years experience as an **IBM AS/400** developer. Some of the skills I bring to the job are:

- The ability to learn and deploy new technologies quickly and creatively.
- Outstanding communication and presentation skills, which allow me to help both non-technical and technical users understand both the big picture and the details of a solution.

## Employment History

### February, 2002 to Present – Independent Consultant

#### Projects

##### **Microsoft Research** – Cambridge, MA – Sept-Dec. 2008

Research Software Developer Engineer, serving as an industry mentor to an MIT class devoted to building **Windows Mobile** applications to run on cell phones. I provided development guidance to student teams and produced some materials, available at <http://web.mit.edu/felknor/Public/6.087/>. More information on the class is available at <http://stellar.mit.edu/S/course/6/fa08/6.087/>.

##### **Massachusetts Institute of Technology** – Cambridge, MA – May. 2003 – present

MIT received a \$25M grant from Microsoft to fund a program called **iCampus** (<http://icampus.mit.edu>). iCampus is a “research collaboration between Microsoft Research and MIT whose goal is to create and demonstrate technologies with the potential for revolutionary change throughout the university curriculum.” Over 50 projects were funded. I began working on one of these projects (iMOAT), but, gradually obtained assignments to many of the other projects as well. I became, in the words of one project director, the “iCampus utility infielder”. When the project ended, an assessment was conducted by an outside consulting firm. I received favorable mention in their final study, available here: [http://icampus.mit.edu/projects/Publications/TLT/iCampus\\_Assessment\\_Full.pdf](http://icampus.mit.edu/projects/Publications/TLT/iCampus_Assessment_Full.pdf)

Here is a list of my contributions to iCampus:

- **iMOAT**. The Program in Writing and Humanistic Studies at MIT received an iCampus grant to develop a web-based writing assessment application using **.NET** technology. The idea was to create a service that could be used by many schools, not just MIT. I managed the testing and release of Version 2.0 of the iMOAT application, and also coded and debugged many of the features. I built and installed the development server in a co-location facility, and implemented a Source Control and Bug Tracking System. I have ongoing responsibilities to maintain and enhance this application, and to support the growing community of universities who use it. This is a **Web Application** written in **ASP.NET** using **C#**. It uses a **SQL/2000** database. URL: <http://icampus.mit.edu/imoat>
- **iLabs**. iLabs is a framework that allows people in remote locations to conduct laboratory experiments over the web. Its architecture uses ASP.NET Web Services to broker information between clients and lab equipment. I worked as a developer and mentor on a team with a number of graduate students to deliver a significant update to the administrative web interface for this project. In addition to development work, I was also engaged as a technical writer on this project, editing the design documents and producing the server build document. This material is all available at <http://icampus.mit.edu/ilabs/architecture>.

- **iCampus Outreach.** The iCampus websites are running on ASP.NET code written by Microsoft Research. I became responsible for bug fixes and general maintenance on these sites (which share a common code base), and I completely wrote the content for some of them.
- **CoMeT.** The Mechanical Engineering Department created a software tool called CoMeT, the Compliant Mechanism Tool. I didn't know what a compliant mechanism was when I undertook this project, but I found out and wrote the content that appears on the front page of <http://icampus.mit.edu/CoMeT>. I also created a Windows Installer for the project that can be downloaded from this site (although you won't be able to install it unless you have MatLab on your machine).
- **PREP.** This is an acronym for Peer Review Evaluation Process, a design methodology for use in teams. The sponsor of this project is MIT's Mechanical Engineering Department. I created a way to model this process inside of Microsoft **SharePoint** by creating custom Web Parts and a custom document event handler. I wrote a number of documents describing the SharePoint solution, and created content for the project web site at <http://icampus.mit.edu/PREP>. I wrote all of the code, as well as documents and PowerPoints. All of it is available for download from the web site.
- **Shakespeare.** The Shakespeare project at MIT has a software tool called the Cross Media Annotation System, or XMAS. It allows people to save and annotate clips from DVDs and streaming media for use in classroom discussions. This is a .NET Winforms application that wraps DirectShow (part of DirectX) using COM Interop in order to control DVDs on a PC. It uses Windows Media Player (also through COM Interop) to manage streaming video. My task on this project was to add the streaming video component, and to add a web services-based server back end.

**Staples, Inc.** – Framingham, MA – June. 2004 – October 2004

Quill.com release 4.05. Added real-time inventory availability lookup functionality to the [www.quill.com](http://www.quill.com) office supply ecommerce site. I created a **VB COM** object, which uses the **MS SOAP Toolkit 2.0** to contact a remote inventory-lookup **Web Service**. The result of this call is an **XML** document, which is transformed into an MS Commerce Dictionary used for the customer's order form. I also participated in debugging both **VB COM** and **ASP** pages, created a test harness for the Inventory Service used for performance testing, and wrote complete documentation of all of my work for the benefit of other developers.

**Christmas Tree Shops** – S. Yarmouth, MA – Oct. 2002 – June 2003

Assisted the client in the selection of a Retail Merchandising System. Met with vendors, user groups; developed a Total Cost of Ownership model; prepared interface and system architecture recommendations; mapped business processes.

**Cressida Associates** – Haworth, NJ – May 2002 – July 2002

Created an Extranet **Web Application** in **.NET** using **C#** and **ASP.NET** for a service bureau that provides outsourced EDI functionality to small apparel manufacturers in the NY area. It uses .NET Forms Authentication, along with roles-based authorization (built into the .NET Framework), to control access to the application. The legacy data is stored in Visual FoxPro, but I designed a **SQL/2000 database** to store all new information. The code makes heavy use of **SQL/2000 stored procedures**, including the ability to return **XML** directly. The XML is transformed into **HTML** using an **XSLT** stylesheet and returned to the browser. The actual customer interface to the data is done in **ASP.NET** using databound grids. The UI was created in Dreamweaver and Fireworks from a template.

**October, 1995 to February, 2002 – Staples, Inc.**

**Aug. 2000 to Feb. 2002 – Architect, Staples.com**

Senior software architect in a group responsible for architectural/technical strategy and systems/application design for [www.staples.com](http://www.staples.com), the highly successful Staples division responsible for the company's several industry-leading, multi-platform, business-to-business and business-to-consumer eCommerce sites and information systems. As the 7<sup>th</sup> most visited eCommerce site (as reported in the NY Times, December 2001), Staples.com has had to meet the challenges encountered by only a small percentage of web sites running on the Microsoft platform.

Some of my accomplishments at Staples.com:

- **.NET Beta Development.** Staples participated in Microsoft's .NET Early Adaptor Program, so we had access to all internal beta releases of the software as it was being developed in Redmond. As part of that effort, I rewrote the Staples.com search engine as a **.Net Web Service**. The application, written in **VB.NET**, featured an HTTP-based web service for external (3<sup>rd</sup> party) consumption, and used .Net remoting over a TCP channel for internal consumption. The UI was done in **ASP.NET**, with a user control that transformed **XML** to **HTML** using an **XSLT** stylesheet. The core of the Search Engine was Microsoft Site Server Search, wrapped inside a **VB COM** component. Both the Site Server DLL and the custom **COM** component were pulled into the .NET project using .NET **COM Interoperability**. My team performed real world stress testing of this and other .Net applications at the Microsoft Technology Center in Waltham MA.
- **eGain Live Customer Service Chat.** Designed and coded the integration of this 3<sup>rd</sup> party chat solution into Staples.com.
- **Presentations.** Developed and gave presentations which introduced **.NET** and the Staples proposed architecture to many groups within Staples. These groups included three Development Teams, Quill.com, Business Depot (Staples.com in Canada), the Database Team, the Decision Support team, and the Project Managers and Business Analysts. The CTO and VP of Development also attended these presentations.

#### Aug. 1998 to Aug. 2000 – Developer, Staples.com

I was a member of the team that wrote and maintained the ASP and VB/COM code that makes up Staples.com.

Projects Included:

- **Back-To-School.** Designed and coded an application that allowed teachers to create a shopping list of supplies for their class, which their students could then access and either print out or use to shop online. Built hooks to allow the code to be reused in the event that Staples.com decides to implement a gift registry. The UI was developed in **ASP** with back-end database **COM** components written in **VB**.
- **Microsoft Commerce Server Early Test Program.** Ported parts of Staples.com to the Alpha version of Commerce Server 2000 at a Microsoft test lab in Redmond, WA.
- **Staples Navigator 2.5.** Coded several of the main catalog pages and performed many bug fixes as part of a multi-company team located at Sapien in Cambridge. Visually, the project was a reorganization and major face-lift of the site. Technically, it shifted most of the business logic to **COM** components written in **VB**, and **SQL stored procedures**.
- **Direct Connect 2.0.** Designed and coded the **ASP** add-to-cart logic as part of a large project team at Sapien in Cambridge. The goal of this project was to connect the Staples.com web site to the back-end AS/400 system in order to provide real-time inventory information.
- **Clearance Center.** Met with business users, gathered requirements, researched AS/400 data feeds, designed the necessary database changes; designed, coded, and tested the Staples.com Clearance Center. Development was done in **ASP**.
- **Email Marketing.** Wrote Staples.com's first email marketing application in **VB** using **MAPI**.

#### Oct. 1995 to Aug. 1998 – Developer, Logistics AS/400 Systems

AS/400 developer for the Logistics IS Department. Projects included:

- **Vendor Metrics.** Gathered requirements, designed, coded, and tested the entire application, including design of the database. This was a decision support system which provided vendor performance tracking. There were several metrics: Fill Rate, Lead Time, and EDI compliance.

- **Vendor Scorecard.** Combined all Vendor Metrics into a unified rating, like a report card. I devised the scales used to integrate these dissimilar metrics.
- **Vendor Scorecard (Client Server Version)** Transformed the Vendor Scorecard application into a PC app with a VB front-end. It used **VB** as the interface to extract data from an AS/400 (using **ODBC**), and produced reports as **Excel** charts using **OLE** to access the Excel object model from within VB.

### **1985 to 1995 – Laura Ashley, Inc.**

Worked my way up through the ranks at this British retailer, from the loading dock through customer service to Inventory (where I was solely responsible for the maintenance and integrity of the company's Item Master). Learned mainframe programming in night school, while creating PC applications for the Accounting department using dBase and Clipper during the day. Wrote DOS-based BASIC applications used on cash registers in Laura Ashley retail stores (my first IT position). Learned RPG and CLP when a need for AS/400 programmers developed in order to take on development and maintenance responsibilities for the Midrange Applications group.

### **Other Employment**

Toured the U.S. and Canada full-time with several bands, as a guitarist and arranger.

### **Education**

**THE CHUBB INSTITUTE**, Parsippany, New Jersey  
Intensive 525-hour programming course. Graduated with 92.5 average.

**UNIVERSITY OF SOUTHERN CALIFORNIA**, Los Angeles, California  
(Coursework towards) Bachelor of Music.