

**David Summer**  
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## Summary

Highly experienced software designer and developer. Concentrating on the effective use of technology in business software applications. Expert level C++ knowledge. Deep technical background combined with exceptional communications and creative skills. Experienced educator and published author.

## Technical Skills

<b>Windows</b>	Visual C++, STL, .NET Visual Studio, MFC, Windows GDI, Win32 API, ActiveX, COM, ATL, Visual Basic, SQL, Adobe FrameMaker, Camtasia, CamStudio, IBM ClearCase, Subversion, CVS
<b>Web</b>	HTML, CSS, XML, RSS, PHP, Perl, JavaScript, Ajax, Adobe Flash, ActionScript, Adobe Photoshop, Adobe Audition, Adobe Dreamweaver, Sony Movie Studio, Bugzilla, Section 508 Compliance, Oracle, LAMP (Linux, Apache, MySQL, PHP/Perl), SEO

## Education

**Bachelor of Science in Computer Science**, Cum Laude, Framingham State College  
**Bachelor of Music in Education**, University of Lowell

## Employment Background

### **Founder, David Summer Communications** (summer 2007 - Present)

Provide software development and technical communications services to large and small businesses. Specializing in web application development, instructional materials, technical consulting, and multi-media web development. [www.davidsummercommunications.com](http://www.davidsummercommunications.com)

Clients Include: GlassHouse Technologies, 3Com Corporation, Energy Federation Incorporated, Inspectrology and Twin Coast Metrology.

### **Senior Software Engineer, IBM** (Contract, 2006 - 2007)

Senior Software Engineer on a team responsible for designing and developing IBM's Microsoft Office Integration project. Project integrates MS Office components, including MS Word and MS Outlook, with IBM instant messaging and web conferencing software.

- Responsible for user interface and middleware design and development using C++, .NET Visual Studio, COM and ATL.
- Designed, developed and debugged ActiveX Office add-in components that exposed instant messaging and web conferencing functionality to end-users.
- Designed and developed middleware components that interfaced with IBM's web server software via REST APIs.
- Worked with server team to overcome URL encoding issues.
- Retrieved XML response information from the server using MSXML component.
- Appropriately handled HTTP return codes from the server.
- Designed client caching mechanism to control server access.

- Created documentation, including detail design documents as well as user scenarios used for product demonstrations.

### **Senior Software Engineer, Soluris (Full Time, 9 years, 1997 - 2006)**

Senior Software Engineer on an engineering team creating software for a Scanning Electron Microscope used in the semiconductor industry. This large-scale project consisted of over 500,000 lines of C++ code with additional Perl and VB components.

The system included 2 microscopes, 2 robots, 3 Windows computers and an Apache/Linux database server. Responsible for everything from project leader to bug fixes for complex multi-person, 6-month projects. Refined requirements, designed the user interface, managed schedules, coded features, wrote automated tests and supported systems.

#### **Windows Design and Development at Soluris**

- Designed a rich client Windows user interface and implemented it using Visual C++ and the MFC.
- Responsible for UI features that included live imaging, image selection and annotation, microscope management, data analysis and reporting. Extensive GDI coding included Windows palette manipulation and translation of SVG streams to Win32 API calls.
- Designed and implemented an ActiveX control used for wafer display and navigation. Features included drag and drop, context menus and zooming and panning of the wafer.
- Designed and implemented a hardware system monitoring feature. The project included an XML configuration file, a background thread used to monitor the system, data storage into Oracle and a reporting and charting mechanism.
- Wrote a fully automated nightly build in Perl and was responsible for individual software releases, including writing scripts to automate ClearCase tasks.

#### **Web Design and Development at Soluris**

- Designed and developed a multi-featured CGI Web application used for data analysis. Application displayed images, graphs, charts, statistics and summary reports.
- Created a search and display mechanism enabling user defined search and display of measurement data.
- Created a software installation procedure for a Linux server. Written in Perl, it was capable of upgrading the web server, restarting Oracle, and upgrading the Apache/Linux configuration.
- Designed and implemented, in both Perl for the Web and C++ for Windows, a feature used to read and render an SVG stream.

#### **Technical Communications at Soluris**

- Managed technical documentation efforts including supervision of the dedicated technical writer.
- Authored, edited and reviewed technical documentation including online help and printed manuals, using Adobe FrameMaker, Robohelp and Adobe Photoshop.
- Created audio/video demonstrations of new features under development for customers in France and South Korea, using Camtasia and Adobe Audition.
- Communicated with marketing and directly communicated with customers to develop requirements for documentation and new software features.
- Integrated context sensitive help into the software product, coding the necessary C++ header files and Win32 API calls.

### **Software Engineer, GenRad (Full Time, 1995 - 1997)**

Software Engineer as part of a development team responsible for rewriting GenRad's board test software product for Windows NT. Responsibilities included producing ActiveX components in C++ with and without the MFC, extensive C++ programming and GUI development using Visual Basic.

## Author

Published author of several technical magazine articles including:

**Implementing Audio Captcha** published in *Dr. Dobb's Journal*

Describes my method for implementing an audio CAPTCHA for a website. The article reviews CAPTCHA in general, discusses Section 508 compliance, illustrates a simple front end for the audio CAPTCHA, gives a detailed explanation of the audio CAPTCHA implementation and suggests customized audio alternatives for better site integration. In addition to the article text, the deliverables included complete code listings, screen shots and MP3 files.

**Shelling the Pod** published in *Dr. Dobb's Journal*

Explains my process for dynamically creating web pages used to convey information about podcast episodes. The article includes an overview of podcasting and a detailed explanation of the PHP code used to create the web pages. In addition to the article text, the deliverables included complete code listings and screen shots.

**Develop an Autobuild Process** published in *Visual Basic Programmer's Journal*

Shows the reader how to automate a software build process using Visual Basic.

Also, several articles on music technology, published in *Electronic Musician*, *Recording* and *The Instrumentalist* magazines.

## Educator

Excellent communication skills developed as a result of over a decade in education.

- Able to communicate complex concepts clearly and succinctly.
- Employed as an educator by public and private schools in MA.
- Continue to run music business. Record, perform, teach and write about music and music technology.