

William B. Davis, Jr.

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SOFTWARE & WEB DEVELOPER

Accomplished IT professional with extensive experience in all facets of software development lifecycle, user training, and support. Skilled at documentation and user interface design. Always interested in examining new technologies while keeping focus on long-term system planning and maintainability.

TECHNICAL SKILLS

- Computers: PCs (Windows, Mac, other), minicomputers (DEC/HP VAX and Alpha), and mainframe (IBM 3090).
- Web technologies: HTML, CSS, Java Server Pages, ASP, and ASP.NET.
- Languages: Java & JSP, JavaScript, Visual BASIC 6 & VBA, VMS BASIC, Microsoft BASIC, Microsoft C, Lattice C, Perl, SQL, COBOL, Pascal, Ruby / Rails, various Assembly languages.
- Scripting: VMS DCL, IBM JCL, Microsoft VBA and VBScript, Unix bash, Windows/DOS batch scripting.
- Operating Systems: Windows, Mac OS & OS X, DEC/HP OpenVMS, Unix, AIX, Linux, other.
- Integrated Development Environments (IDEs): Eclipse, IBM RAD 6, ISPF & Panvalet, Visual Studio, VB6, XCode, Macintosh Programmer's Workshop, command-line & Make.
- Databases: MySQL, SQLite, Microsoft SQL Server 2000.
- Tools: CVS, PVCS, SourceSafe, GForge, Make, various SQL tools, many more.
- Other: Web Services, WinSock, WebSphere, Geronimo, Mule ESB, MQ Series, CKEditor, jQuery.

PROFESSIONAL EXPERIENCE

2007-2017 : State of Iowa - Office of the Chief Information Officer (OCIO)

Des Moines, IA

Information Technology Specialist 3, I/3 Project Team (Integrated Information for Iowa)

- Maintained and enhanced the Online Payroll Warrants web site (Java/JSP, WebSphere, Web services, Eclipse) used by most state employees to view their paycheck stubs. Worked with Central Payroll, server team, networking team, and mainframe team to bring many feature upgrades to completion, also on moving site from WebSphere 5.1 on IBM AIX (Unix) to WebSphere Community Edition (a.k.a. Apache Geronimo) on Windows. Found and fixed several security holes in original code that would have allowed malicious parties to access employee pay data.
- Maintained and enhanced the back-end COBOL-based mainframe web service for the Online Payroll Warrants system database after the web service programmer retired. Worked with mainframe staff to switch from original IBM MQ Series messaging to use of a web service.
- Enhanced reliability and reduced errors or outages in Income Offset project programs (Java, Mule ESB, Ruby & Ruby on Rails), which reclaimed tens of millions of dollars of money owed to state agencies annually by keeping (offsetting) state tax refunds, lottery/casino winnings or payments to vendors who owed debts to the state. In FY 2008, \$22.5M was reclaimed and by FY 2017, \$48.8M was reclaimed. System was also used by cities, fire departments, community colleges, state universities, and utilities in Iowa.
- After not having used COBOL in over 20 years, refreshed knowledge quickly and assisted mainframe programming team with several COBOL programming projects on the mainframe-based State Human Resources Information System (HRIS). Assistance was mostly report changes, data extraction, and data loading.

- Handled daily processing issues in the batch processing cycle of state financial/ERP system (CGI's AMS Advantage) AIX and Windows batch jobs. Use of UNIX bash shell, Windows command prompt, and other tools to diagnose and solve problems.
- Many other programming projects using Microsoft Visual Basic for Applications in Excel, Word, and Outlook.
- Co-administrator for maintaining IBM's Kenexa Brass Ring system, which ran the State of Iowa's job posting & applicant tracking system. Extensive experience on Kenexa Brass Ring Workbench administration tool.
- Assisted in setup and conversion from IBM Kenexa Brass Ring to the more government-oriented NEOGOV job posting and applicant tracking system in 2016 and 2017; served as co-administrator.
- Set up and administered the WebDAM digital asset management system (photos, video, documents) for clients such as the Iowa Dept. of Natural Resources and Iowa Dept. of Economic Development (Tourism).

2007 : Startly Systems, Inc.

Clive, IA

Contract Technical Writer

- Worked on users guide for their CalendarMaker product using Microsoft Word and Adobe InDesign.

2007-2012 : Standard & Poor's, Inc.

New York, NY

Contract Programmer

- Recreated (under a tight time deadline) a TCP/IP data capture program in Visual Basic 6. It extracted data from the Nasdaq mutual funds ticker data streamed via the Internet and fed it to an HP Alpha OpenVMS system for processing. Wrote extensive user and technical documentation, and trained users.
- Made additional system changes over the next several years as the Nasdaq data feed record structure changed.
- Supported them after Hurricane Sandy took out their data center in Manhattan. Set up Nasdaq data capture program on a new server and fixed problems running it under the newer Windows version due to missing DLLs.
- Worked to re-implement the Nasdaq program in Java to comply with their changing corporate standards.

1998 - 2007 : Standard & Poor's Fund Services (later part of Morningstar)

Urbandale, IA

Computer Systems Programmer/Analyst – Windows, OpenVMS

- Created new and modified existing programs for data entry, processing, and report production using Visual Basic 6, Microsoft Access, VBA, SQL Server 2000, FTP to OpenVMS & SunOS systems, and COM to control other Windows programs to automate file transfer, file production, and user notification.
- Developed new and maintained existing entry screens, reports, and processing jobs using DEC/HP VMS BASIC & DCL on DEC/HP VAX & HP Alpha minicomputers running OpenVMS.
- Automated formerly manual data entry from dozens of spreadsheets received via e-mail by using a VB6 program, saving hours each day, freeing staff for other products, letting staff handle data from additional companies, and improving quality of data. Data was compared to competitors and exceeded all in quality, depth, and scope.
- Automated a manual data entry task that used to take several people two full days, monthly. The automated system handled the entire task in under a minute, allowing the staff to handle other tasks requiring human insight.
- Used VB6 and WinSock TCP/IP API to automate capture of mutual fund data feed from the Nasdaq stock market, resulting in more reliable and accurate delivery of data, saving hours of manual data entry daily. This also allowed for expanding our coverage to include data from many additional mutual funds that were not on the Nasdaq.
- Created software design and technical specs, technical and user documentation for new and existing systems, resulting in better and more reliable software, and easing future maintenance and enhancement projects.
- Completed revisions to OpenVMS-based systems for Year 2000 Project, averting major problems.
- Handled problems with daily and monthly processing on Windows and VMS, automated to improve quality.
- Handled questions and problems from system users with the software we created for them, and used that information to further improve the systems and processes.

- Given corporate Product Innovation ACE Award for work done on the Underlying Funds Project.
- Received Special Achievement Award for work performed on the time-critical SEC After-Tax Returns project.

MicroFrontier, Inc.

Urbandale, IA

Director of Technical Support / Product Design and Testing / Webmaster

- Created company web site including several CGI-backed web forms using JavaScript. CGI scripts written in Perl on a Digital Unix system for surveys, signup for seminars, product registration.
- Built translated versions of software in French, German, Italian, Spanish, and Swedish allowing it to be sold in multiple countries and bundled with scanners & cameras sold worldwide using a single package.
- Built software distribution installers, allowing sales via web and online services not just mail and computer stores.
- Created software design specifications for several new products and updates.
- Wrote tutorials for product manuals and transformed product manuals into HTML for use on product CDs.
- Managed Quality Assurance testing of software products on Macintosh and Windows, freeing up programmers to concentrate on coding and reducing number of bugs in shipping products.
- Created and supervised tech support department, freeing up programming staff to concentrate solely on programming.
- Developed relational databases in FileMaker Pro to track technical support contacts, bug reports, suggestions, and frequently asked questions, allowing for better software quality and assisting support staff with helping customers.

PrairieSoft, Inc. / Prairie Group, Inc. (spinoff of CE Software)

West Des Moines, IA

Director of Technical Support / Product Design & Testing Manager / Webmaster

- Developed Prairie Group's Web site, improving customer technical support and improving pre-sales and post-sales information available to customers.
- Responsible for telephone, e-mail and online forum technical support, freeing up other staff to focus on their jobs. Developed FileMaker Pro databases to track technical support contacts, bug reports, suggestions, and frequently asked questions, allowing for better software quality and better support.
- Created technical specifications for many product upgrades based on experience with technical support issues and customer feedback, greatly improving product capabilities and reliability.
- Coordinated quality assurance testing and external beta testing for new products and upgrades, reducing number of bugs in shipping products and increasing product quality due to feedback from testers.

MacNET, Inc.

Cupertino, CA

Contract Programmer

- Worked on Mac/Windows QuickMail electronic mail gateway to MacNET mail system

CE Software, Inc.

West Des Moines, IA

Software Engineer

- Member of programming teams for award-winning software products QuickMail, QuicKeys, and CalendarMaker for Macintosh and Windows platforms.
- Created software gateways for QuickMail so it could exchange mail with many other electronic mail systems.
- Worked with translators and enhanced source code to support proper operation in multiple human languages, enabling software to be translated into Japanese, French, German, Italian, Swedish, and Danish, allowing the software to be sold in 18 countries outside the USA. Trained programmers on how to localize software.

Director of Technical Support

- Established CE's technical support department and managed four tech support staff members. Department given several awards by IT professional/user groups and computer trade magazines for support quality.
- Wrote user documentation for QuickMail Client, QuickMail Forms e-mail form design, and QuickMail Remote Access programs.

Pioneer Hi-Bred International

Johnston, IA

Software Engineer - Farm Information Management Services Division

- Developed applications for use by farmers and for information services provided to farmers. Programmed VAX minicomputers in VMS Pascal & DCL, and MS-DOS compatible personal computers in Microsoft C and Lattice C.

Software Engineer – Data Systems Division, Payroll Department

- Programmed payroll applications and reports in COBOL on IBM 3090-compatible mainframe. W-2 printing programs had to allow for employees working in multiple states and/or countries in a single tax year.

Amtec Computer Systems

Urbandale, IA

Software Engineer

- Developed new and modified existing Medical Office Management System software written in Business BASIC on Pertec microcomputers to meet customer requirements.
- Provided hardware and software installation, preventative maintenance, and technical support to customers, including on-site support and phone support.

Radio Shack Computer Center

Urbandale, IA

Trainer / Software Engineer

- Trained customers in programming in BASIC, on using TRSDOS, and on using various application software.
- Created Computer Sales Quote system in Microsoft BASIC, used by local staff and later by other Radio Shack stores in the district to produce price quotes for computer systems sales.
- Wrote promotional "customized shopping list" software using Microsoft BASIC that was used during Christmas holidays in Radio Shack stores around the country to help shoppers find appropriate gifts.

EDUCATION & PROFESSIONAL DEVELOPMENT

- **Drake University:** Bachelors of Arts in Computer Science.
- **Spindustry:** Microsoft Official Training #MS-2071: Querying Microsoft SQL Server 2000 with Transact-SQL.
- **Spindustry:** Microsoft Official Training #MS-2072: Administering a MS SQL Server 2000 Database.
- **Spindustry:** Microsoft Official Training #MS-2310: Developing ASP.NET Web Apps using Visual Studio.NET.
- **Spindustry:** Microsoft Official Training: Microsoft Access Intro, Advanced, Macros & VBA Programming.
- **Des Moines Area Community College:** Visual Basic I – III.
- **Des Moines Area Community College:** Java I – III.
- **MindLeaders:** (*Computer Based Training*): Introduction to Unix.
- **Element K:** (*Computer Based Training*): Relational Database Design.

OTHER ACHIEVEMENTS

- Columnist and Reviewer, MacGuide Magazine, a nationally-published computer magazine.
- President, Treasurer, Secretary of Northwoods Townhomes Board of Directors, multiple terms.
- Founder, President, Newsletter editor of Club Mac Midwest computer user group.
- Vice President, Webmaster of Des Moines Science Fiction Society (DMSFS).

- Panel Presenter/Moderator, Webmaster of multiple DemiCon annual conventions (put on by DMSFS).
- Founder and President of IowaPen writing instrument collectors group.
- Jim Gebhardt Memorial Award & Scholarship, Hoover High School.