

Dave Collins

Outback Software, Ltd

Summary

I have a broad background in computer systems, with over 30 years of experience on systems ranging from single-user workstations to large distributed database and communications systems, using many different tools and programming languages. My development approach focuses on functionality, and also on important quality attributes such as usability, security, reliability, and maintainability. Besides the technical disciplines of systems development, I have skills in communication, education, and knowledge of various business domains.

Skills/accomplishments

- **Design and programming:** I have been programming since 1967, and have worked since 1987 in object-oriented analysis, design and programming. I am highly skilled in Smalltalk and have also programmed in Java, C++ and Object Pascal. I have experience in other languages including C, Mathematica, Visual Basic, JavaScript, PL/I, Lisp, APL, Pascal, GPSS, and assembly language. I've worked with operating systems including IBM MVS, all versions of Microsoft Windows, OS/2, and Linux. My database experience includes IMS, SQL, and DB2.
- **Technical communication:** I have been a professional educator for IBM, and have presented tutorials and seminars at industry conferences (e.g., SHARE, GUIDE, OOPSLA) on object-orientation, user interface design, and software usability. My book, *Designing Object-Oriented User Interfaces*, was published by Addison-Wesley in 1995. I have extensive experience with word processing and graphics applications such as MS Word, FrameMaker, Adobe Acrobat, PhotoShop, and Corel Draw, as well as web page implementation using HTML, CSS, and JavaScript.
- **General technical ability:** I have done significant technical work on platforms ranging from mainframes to personal computers. I have a broad understanding of system design, architecture, and business issues, as well as the ability to do detailed design and programming. I am a fast learner, and have mastered many languages and platforms through hands-on self-teaching.

Work history

June 1993 - present

Founder and principal consultant of Outback Software, Ltd., a consulting firm specializing in object-oriented development. Projects include:

- Senior analyst/designer/programmer on several three-tier trade finance applications for a large European bank (Windows NT client/server, IBM MVS mainframe). This includes enhancement and maintenance of an object/relational database using SQL/DB2, and development of automated test tools.
- Senior analyst/designer/programmer prototyping an online booking system with an XML-based information publishing component for a large European bank.
- Senior designer/programmer for a client-server telemarketing order entry system (OS/2 client, IBM MVS mainframe with CICS and DB2).
- Ongoing network and security installation, configuration, and administration for Outback's small office network, including Windows (95, 2000, XP) and Linux machines with wired and wireless networking.

January 1992 - June 1993

Senior Programmer, End User and Object-Oriented Technologies, IBM T. J. Watson Research Center, Hawthorne, NY. Projects included:

- Developing application frameworks under OS/2 for supporting "workplace" style user interfaces, with extensive use of direct manipulation, enhanced text editing, and hypertext.
- Design and programming for a distributed multimedia system with an object-oriented database on AIX and a GUI front end on OS/2.

1988 - 1991

Senior Instructor, IBM U. S. Education Center, Thornwood, NY. Developed and taught courses in software usability, user interface design, and object-oriented programming. Courses for which I was the principal developer included *Design of Object-Oriented User Interfaces* and *Advanced Software Development with Smalltalk*.

1985 - 1987

Consulting Systems Engineer in an IBM Marketing Branch Office. Provided technical guidance and project leadership on high-visibility application development and system integration projects, and communicated technical directions to IBM and customer executives.

1976 - 1984

Systems Engineer in an IBM Marketing Branch Office. Provided design assistance, systems integration, contract programming (systems and applications), and performance analysis on large application development projects done by customers. Application environments included MVS with IMS, DB2, and CICS, personal computers, and multivendor networks.

1967 - 1975

Customer Engineer and Programming Systems Representative in the IBM Field Engineering Division. Performed hardware and software maintenance on System/360 and 370 systems, and associated operating systems, subsystems, and applications.

1964 - 1967

Ground radar technician, U. S. Marine Corps. Vietnam veteran.

Education and certifications

B.A. in Computational Mathematics (Summa cum laude), Fordham University.

B.S. in Statistics, University of New Mexico.

Publications

Collins, David. "Assessing the security of the Windows XP Internet Connection Firewall." SANS Institute Information Security Reading Room, 2002. http://rr.sans.org/win/XP_firewall2.php.

Collins, Dave. *Designing Object-Oriented User Interfaces*. Reading, MA: Addison-Wesley, 1995.

Collins, Dave. "What Is an Object-Oriented User Interface?" *Proceedings of the Symposium on Object-Oriented Programming Emphasizing Practical Applications*. ACM/Marist College, 1990.

Davis, Ben, Linn Marks, Dave Collins, et al. "The Human Interface to Large Multimedia Databases." *Proceedings of the Conference on High-Speed Networking and Multimedia Applications*. San Jose, CA: IS&T/SPIE, 1994.

Mack, R., L. Marks, D. Collins, and K. Instone. "The CHI 95 Conference Electronic Publication: Introduction to an Experiment." *ACM SIGCHI Bulletin*: 28, 2, 1996.

Mack, R., L. Marks, D. Collins, and K. Instone. Editors. *CHI 95 Electronic Conference Proceedings. (Proceedings of the Conference on Human Factors in Computing Systems, sponsored by the ACM Special Interest Group on Computer-Human Interaction)*. ACM, 1995.

Mack, Robert, Peter Malkin, Dave Collins, et al. *Smalltalk Prototyping of CUA 1991 Workplace and Multimedia Information Management Concepts*. Technical report, IBM Research Division, 1993.

Miscellaneous

I am a member of the Association for Computing Machinery (ACM), ACM SIGGRAPH, ACM SIGCHI, American Society for Quality (ASQ), Mathematical Association of America, and Past President (1993) of the Hudson Valley Chapter of the Human Factors and Ergonomics Society. I am active in civic affairs, and serve on the Los Alamos County Transportation Board.