

# David W. Gray

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## Skills

- Management
  - Managed teams from two to ten people
  - Senior member of feature team in many Microsoft product cycles
  - Effective Mentor and Coach in 1-1 and small group settings
  - Experience with SCRUM and other Agile methodologies
  - Experience with feature crews and traditional waterfall methodologies
  - Experience building curriculum and classroom teaching
- Technical
  - 10+ years of C# programming experience
  - 10+ years of C/C++ programming experience
  - Most experienced in thick client applications, especially diagnostics tools
  - Currently building full stack web development skills (including Asp.Net/MVC, MS-SQL/Entity Framework, JavaScript + Libraries, HTML/CSS)
  - Experience in early web full stack development.

## Work experience

**2014-** **music4dance.net** **Seattle, WA**

### Founder

- Building a website to help ballroom, swing, salsa and others partner dancers find music that inspires them to dance.
- Teaching Beginning Programming using JavaScript for General Assembly

**2013-2014** **Self + TEALS** **Seattle, WA**

### Volunteer Teaching

- Taught "Introduction to Computer Science" to high school students as part of the TEALS program.
- Volunteered at an alternative school with a low income student base. Build the curriculum nearly from scratch to better match the abilities and interests of the students.
- First semester was a much reduced version of Berkeley's Intro to CS for non-majors using BYOB, building lectures with slide decks, reading notes, quizzes, and projects.
- Second semester was based on Khan Academy's JavaScript programming curriculum and worked as a reverse classroom, building supplementary materials including lectures, quizzes and projects around the core Khan Academy curriculum.

### Sabbatical

- Devoted this time to generally improving the learning process.
- Got a start at learning to speak Spanish.
- Learned to play the piano (a little) and refreshed some music theory.
- Started writing, including a reasonably active blog at [rebootmyself.wordpress.com](http://rebootmyself.wordpress.com)
- Did some coding, including projects for the TEALS curriculum and started to build full web-stack skills.
- Starting learning to tap dance.

**2006 – 2012** **Microsoft Corporation** **Redmond, WA**

### Principal Lead Software Design Engineer

- Led the Visual Studio Debugger team for the VS2012/Win8 product cycle. Windows 8 represented a major challenge for the debugger team on a number of levels – this was the first time in well over a decade that a new processor architecture has been introduced, the concept of the windows runtime had a substantial impact on all three of the engines the team owned (Native/Managed/JavaScript), and security lockdown at all levels of the technology stack presented a continuous flow of new problems (debuggers are very hard to distinguish from malware). Led the team through these and other challenges and produced a faster and more stable debugger in

the process. This was in the context of an (enforced from the above) scrum team that was embedded in a division that practiced waterfall style project management.

- Led the IntelliTrace™ team in the v1 of a new debugger feature in VS2010 that added in a 'historical' aspect to the debugging experience. Built the ability for the tester to seamlessly collect logs during testing and attach them to bug reports. The developer could then open the log from the bug and open it within the Visual Studio debugger. IntelliTrace™ was the first new feature of its magnitude to be added to the VS debugger in its entire history. The co-ordination to build it and ship it both in Visual Studio and the Team Test product was extraordinary. This was a giant step towards enhancing the edit-compile-debug experience of every developer that uses the product, and it is even more important as a move towards making software more diagnosable outside of the developer's desktop and a precursor to DevOps efforts in general.
- Led the VSTS Profiler team during the first part of the VS2008 product cycle. During this time the team reworked the analysis engine to allow for improvements to the user experience. The most important of these revolved around the ability for a software engineer who was not a performance specialist to get to a concrete action from the data.
- Set up a co-operative virtual team between QA and Development to manage internal and external support which has been effective in both supporting customers and getting QA involved more deeply as product owners.

**2003 – 2005**

**Microsoft Corporation**

**Redmond, WA**

### **Senior Software Design Engineer**

- Was a member of the Visual Studio Team Systems Profiler team
- Contributed to the full stack from data collection to analysis and visualizations. Primary responsibility was for the end-to-end user experience within the Visual Studio IDE.
- Designed and implemented an asp.net helper component that is used by both the profiler and several of the test tools to manage interaction with asp.net applications.
- Designed and implemented integration between the profiler and test tools.
- Managed part of the team as a virtual lead for both Beta 2 and Release cycles. This included managing triage and acting as the team's ship-room representative in both the product unit and division ship-rooms.

**1999 - 2003**

**theGray.com**

**Seattle, WA**

### **President**

- General software and Internet consulting including:
  - Technical feasibility analysis for venture capitalists
  - Web site design and deployment
  - Setup and tailoring of office automation and billing software for an alternative healthcare clinic
  - Web based survey and data-cleaning

**1996 - 1998**

**Sunhawk.com**

**Seattle, WA**

### **Vice President of Technology**

- Managed a mixed team of Software Engineers, Graphics Artists, and Music Librarians.
- Implemented an e-commerce solution for downloading an encrypted file over the Internet, previewing the first page, and selling the encryption key via credit card or account.
- Implemented a distributed, object-oriented database for tracking meta-information about files for sale and price, permissions and usage.
- Implemented an internal web-site publishing tool that automatically generated the corporate web site and catalog based on user-defined templates combined with information from a database.

**1989 - 1996**

**Microsoft Corporation**

**Redmond, WA**

### **Software Design Engineer Lead (1995-1996)**

- Team lead for the first Visual C++ Enterprise edition
  - Lead a team of four developers
  - Worked closely with QA and PM to release a V1 product on a short ship cycle
  - Integrated database management into Developer Studio
  - Worked with adjacent teams to build ATL wizards and SQL server debugging into Developer Studio.

### **Software Design Engineer (1989-1995)**

- Implemented custom development tools for a video compression research team
- Abstracted the core debugger functionality from the stand-alone debugger (CodeView) such that the following were feasible:

- Multiple operating system support (DOS, Windows, NT, OS/2, Macintosh)
- Multiple processors support (x86,68K,Alpha,PowerPC)
- Remote, cross-platform, and distributed debugging
- Integration of debugging functionality into IDEs (QuickC and Visual C++)
- Optimized symbol loading such that a full debug build of Excel took 20 seconds to load rather than 30 minutes on the same hardware. This enabled Office developers to use full debug builds of their applications.
- Wrote CodeView for OS/2 2.0 (Microsoft's first 32-bit debugger)
- Wrote the integration layer for a pluggable expression evaluator in CodeView. This included writing a pseudo .dll loader for DOS that allowed the debugger to load the same expression evaluator .dll in DOS that was loaded in windows.
- Implemented long filename support and worked on OS/2 support for CodeView in C6.0

**1988 (Summer)      Microsoft Corporation      Redmond, WA**  
**Software Design Engineer Intern**

- Designed and wrote an RTF format differencing program that included differences at multiple levels (work, sentence, paragraph) and a move operation as well as add and delete.

**1985 - 1989      Center for Arts and Technology      Pittsburgh, PA**  
**Software Engineer**

- Wrote a music editor for the Macintosh that included an easy to use entry system and voice analysis for use in teaching music theory (specifically voice leading and harmony).

**1982 - 1985      Bethesda Computers      Bethesda, MD**  
**Sales/Technical Support**

- Sold Apple II and Macintosh, and early PC Clones to walk in customers and corporate accounts.
- Performed both hardware repair and software training.
- Specialized in enabling people with disabilities to use computers.
- Software consulting including writing an integration layer for a calculus teaching program and data conversion for a stock market analyst.
- Designed and taught courses in BASIC and LOGO for younger students in the store's learning lab

## **Education**

**1985-1989      Carnegie Mellon University      Pittsburgh, PA**  
**Bachelor of Science/Applied Math (Computer Science)**

**1981-1985      Bethesda-Chevy Chase HS      Bethesda, MD**