Dave Bradlee Software, LLC 5063 Harold Place NE Seattle, WA 98105

redistricting@gardow.com http://davebradlee.com

## **Dave Bradlee**

#### **Objective**

Software consulting, particularly development of web, data visualization and/or map applications, especially for non-partisan and progressive social and political organizations and companies.

#### Technical Skills and Strengths

Excellent problem solving and algorithm development.

Excellent ability to create performant, virtually bug-free software.

Strong ability to build rich user experiences in Silverlight.

Strong ability to learn new technologies.

Extensive experience with C++, C#, Silverlight, .NET Framework and compiler technology.

Experience with Bing map technology, Java, JavaME, Javascript, Perl, Web services, REST, JSON, HTML, XML, natural language technology, Visual Basic, MS Office macros.

## Work experience

# <u>2009 - present Dave Bradlee Software, LLC Seattle, WA</u> Dave's Redistricting Application, Dec 2008 - present

- Developed the only <u>web application</u> that allows anyone to draw congressional, legislative and county council districts for 49 states.
- Application features:
  - o Intuitive user interface.
  - Many options to show/hide map features and visualize data.
  - o Allows user to click and sweep across the map to "color" districts.
  - o Automatically shows demographic and election data as district is drawn.
  - Can input from and output to spreadsheet form (CSV).
  - Uses 2010 census data and has election data for 22 states.
  - Uses Silverlight framework with Bing map; runs on Windows and Mac.
- Used by bloggers, legislators, congresspersons, non-profits and news organizations.
- Has been used to submit redistricting legislation and has been in the news.

#### Strategic Districts, Mar 2011 - Jun 2011

 Developed client side of redistricting application that allows extensive parameterization of desired outcomes. Uses Silverlight framework with Bing map.

#### Wellzio, Inc., May 2009 - Dec 2010

- Developed phone application prototype for disease management system in JavaME.
- Developed web services layer in Java for phone application to communicate with disease management business logic and database.
- Enhanced and developed specifications for disease management system.

#### Sep - Nov 2008 Darcy Burner for Congress Bellevue, WA

Volunteered doing transcripts, Excel charts, newspaper research and phone calling.

### 1991 - 2008 Microsoft Corporation Redmond, WA

#### Software Development Lead, Office Visio, Oct 2003 – Sep 2008

• Led development team and wrote software for pivot diagram, validation and crossfunctional flowchart features.

#### Development Manager, Natural Language, Aug 2001 - Oct 2003

- Handled significant reorg of group and division, rebuilt team morale, better fit group goals into division goals and leveraged group strengths.
- Balanced short term deliverables with investment in far reaching technology bets.

#### Software Development Lead, Natural Language, Aug 1999 – Aug 2001

- Successfully shipped grammar checkers for 4 languages in Office XP.
- Led major re-architecture of natural language engine to allow new NL features.

#### Software Development Engineer, Natural Language, Feb 1999 – Aug 1999

 Developed language independent tokenizer for English, French, Spanish and German.

#### Software Development Lead, Visual Basic, Sep 1991 – Feb 1999

- 1997-1998: Co-led complete VB compiler re-architecture; Led effort to target different virtual machine (first Java VM, then MS VM).
- 1991-1997: Led development team and wrote software for major portions of compiler and runtime for Visual Basic for Applications and Visual Basic 4 and 5.

#### Software Development Engineer, Languages, 1986 - 1989 (part-time)

Developed code generator for Intel i860 chip and other portions of C compiler.

#### 1982 - 1985 Boston Systems Office Waltham, MA

#### Software Engineer / Manager

- Co-managed compiler group responsible for Pascal and C cross-compilers for the 68000, 6809, 386, and Z80 chips.
- Developed Z80 code generator and target independent optimizations.

### 1978 - 1982 Data General Corporation Westboro, MA

#### **Software Engineer**

Developed major components of Fortran 77 compiler. Developed Fortran 77 runtime.
 Maintained and enhanced Fortran 4 compiler.

#### **Education** University of Washington, Seattle, WA

Ph.D. 1991, Computer Science. Retargetable Instruction Scheduling for Pipelined Processors.

#### Union College, Schenectady, NY

B.S. 1977, Mathematics and Computer Science, cum laude

#### **Patents**

Mark Nelson, Mike Woolf, Heidi Munson, David Bradlee, Evan Moran. *Inferring diagram structure through implicit Shape relationships*. Filed March 2009.

Dennis M. Canady, Alan Carter, Ilan G. Caron, Mark L. Roberts, David G. Bradlee, Steven E. Lees. *Compiler and method for evaluation of foreign syntax expressions in source code.* Filed August 1994. Awarded April 1998.

Jeffrey C. Robbins, David G. Bradlee, Timothy L. Patterson. *Call template builder and method.* Filed April 1995. Awarded March 1998.

#### **Publications**

David G. Bradlee, Susan J. Eggers, and Robert R. Henry.

Integrating register allocation and instruction scheduling for RISCs. International Conference on Architectural Support for Programming Languages and Operating Systems, April 1991.

David G. Bradlee, Susan J. Eggers, and Robert R. Henry.

The effect on RISC performance of register set size and structure versus code generation strategy. International Symposium on Computer Architecture, May 1991.

David G. Bradlee, Robert R. Henry, and Susan J. Eggers.

The Marion system for retargetable instruction scheduling. ACM SIGPLAN'91 Conference on Programming Language Design and Implementation, June 1991.