

# Patrick Mueller

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## summary

- **Senior software developer** and **project leader** for **software development tools** and **application software**.
- **30+ years** of professional experience.
- Active in using the latest **mobile**, **web front-end**, and **node.js back-end** technologies.
- Active **web developer** since 1993.
- Focus on creating software which is **usable**, **readable**, **maintainable**, **documented**, and **small**.
- Passion for working on **debugging and diagnostic tools**.

## work experience

### NodeSource - RTP, NC (2015-now)

Making life better for node.js developers at NodeSource.

#### Senior Node Engineer

- working on NodeSource products, focusing on N|Solid
- adapted the Cloud Foundry buildpack for Node.js to N|Solid at nsolid-buildpack-cf
- adapted the Heroku buildpack for Node.js to N|Solid at heroku-buildpack-nsolid
- various cloud-y activity around AWS, including AWS Lambda

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### IBM, Bluemix Developer Advocate - RTP, NC (2013-2015)

Bluemix is IBM's platform-as-a-service offering, built on the open-source Cloud Foundry project.

#### Senior Technical Staff Member

- Started playing with Cloud Foundry in 2013 - "the VCAP days"

- Provided help for users of Bluemix; whatever customers needed to become successful with the product, via private engagements and public support channels such as the public Bluemix forum
  - Authored numerous blog posts and sample applications showing off aspects of the platform
  - Presented at meetups, conferences, customer sessions
  - Primarily focused on node.js as runtime
  - Developed the cfenv and cf-node-debug node packages, making it easier to use node.js on Bluemix
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## **IBM, WebKit/Cordova Contributor - RTP, NC (2009-2013)**

IBM's initial contributor to the WebKit project, to get some skin in the game. Segued to a role contributing to PhoneGap / Apache Cordova.

### **Senior Technical Staff Member**

- Focused on improving WebKit's Web Inspector debugger
    - Added support for "named eval ( )'s"
    - Added "watch panel"
    - Added initial support for `console.table ( )`
    - Added support to display HTTP headers and data for XHRs
    - Number small fixes/enhancements
  - Developed weinre (WEb INspector REmote) to enable some amount of debugging on mobile devices, while waiting for the real thing to land in the device browsers
  - Contributed weinre to PhoneGap, which shortly became Apache Cordova
  - Contributed to design and implementation of initial Cordova core code
  - Implemented sample plugins, including initial bar code scanner for iOS
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## **IBM, Rational CTO Team Member - RTP, NC (2008-2009)**

The Rational CTO team performed various tasks to ensure Rational was making the best use of current technologies in their products.

### **Senior Technical Staff Member**

- Contributed to the design of the Jazz Foundation Services
  - Consulted for Rational product development
  - Early investigation on usage of cloud-based computing for Rational products
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## **IBM, Project Zero - RTP, NC (2006-2008)**

The Project Zero project was created to provide agile programming capabilities to web-based application developers.

## **Senior Technical Staff Member**

- Coordinated IBM's involvement with the PHP community
  - Developed REST-based modeling tools
  - Worked on the Project Zero web-based IDE
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## **IBM, Rational Team Concert - RTP, NC (2005-2006)**

The Jazz project was a reboot of IBM's source code management and other program lifecycle management capabilities, with a focus on Eclipse and web front-ends. The technology is currently shipped in IBM's product Rational Team Concert.

## **Senior Technical Staff Member**

- Converted a fragile, unscalable web services framework to a dynamic system, eliminating lots of boilerplate and providing a more agile services framework for developers
  - Developed Java- and JavaScript-friendly remote web services framework and client libraries
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## **OTI, Smalltalk and Java - Raleigh, NC (1997-2004)**

Object Technology International (OTI) was acquired by IBM in 1996. I worked on assignment to OTI during this time frame, performing various roles such as Raleigh Lab Director, and Tech/Team Lead for several projects.

## **Senior Technical Staff Member**

- Analysis work for IBM Director-ish folk who needed to keep abreast of Open Source Java technology. Lots of reading and playing with stuff. Tracked the Apache Geronimo project quite closely, before IBM's purchase of Gluecode (employer of Geronimo developers)
- Lab Director of the OTI Raleigh lab, coordinating all work going on in the lab with other OTI labs and management
- Tech/Team lead for the embedded GUI libraries for the WebSphere Device Developer (WSDD) runtimes, including MIDP, AWT, P3ML, BMG, and Degas/EGFX technologies
- Co-wrote initial Eclipse SWT port for QNX/Photon
- Worked on operating systems/libraries including PalmOS, WinCE/PocketPC, Qt, SymbianOS, and devices such as Palm Pilot, HP/Compaq iPAQs, Nokia Communicator.
- Worked on deeply embedded systems using QNX and MontaVista Linux on development boards such as the Motorola MobileGT platform and Intel CerfCruiser

- Designed/developed the audio interfaces for MIDP 2.0 for the initial releases of this functionality for the Websphere Device Developer product
  - Lead developer of the jxeLink project, an embedded java linker
  - Project management for two releases of the VisualAge MicroEdition product
  - Embedded Smalltalk product development, including the Network Vehicle concept car for Delco for Comdex '97, working with Delco, General Motors, and Sun
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## **IBM, VisualAge Smalltalk - RTP, NC (1993-1997)**

Various jobs related to Envy/Smalltalk and the product based on that, VisualAge Smalltalk.

### **Senior Software Developer**

- Lead developer of the Web Connection feature of VisualAge Smalltalk
  - Developed the the initial prototype of the VisualAge Java version of the Web Connection feature, using the nascent Servlet technology and pre-historic native server plugin libraries
  - Designed / developed the communications layer (TCP/IP) and GSS-API security API usage for the Distributed Smalltalk feature of VisualAge Smalltalk
  - Developed the initial port of Envy/Smalltalk to AIX
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## **IBM, CORBA on DCE - Cary, NC (1992-1993)**

Member of a small team that developed an OMG CORBA implementation on top of DCE for OS/2 and AIX.

### **Staff Developer**

- Focused on the core libraries for the CORBA runtime for clients
  - Co-authored official OMG CORBA IDL mappings for Smalltalk
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## **IBM, Hickory text editor - Cary, NC (1991-1992)**

Work on the Hickory text editor and follow-on Multi-Line Edit (MLE) Control for OS/2.

### **Software Developer**

- Designed / developed the REXX macro interface into the Hickory editor control
- Created numerous core and demo macros for the Edge editor, the sample editor we shipped that used the editor control

- Designed / developed the text model for the follow-on to the Hickory editor, a complete rewrite from OS/2 16-bit to 32-bit
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## **IBM, Natural Language Processing - Bethesda, MD (1989-1991)**

Base language dictionary access code (eg, for spell-checkers) and advanced language parsing systems.

### **Software Developer**

- Designed / developed dictionary building tools and dictionary access APIs for the grammar checking editor CRITIQUE for both VM/CMS and OS/2
  - Designed / developed text-processing algorithms for use in the natural language processing Twain library for OS/2
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## **IBM, Master Product Inventory - Lexington, KY (1985-1988)**

Software developer for IBM's primary database of every hardware product it sells.

### **Software Developer**

- Developed batch programs for MVS
- Developed interactive CICS programs for 3270 displays
- Created programming tools as development aids for VM/CMS and MS-DOS, using REXX
- Local expert on Intertest, a graphical step-mode debugger for CICS programs

# **education**

Purdue University, 1981 -1985

West Lafayette, IN

B.S. Computer Science

B.S. Mathematics

# **buzzwords**

- AWS Lambda, AWS etc, Cloud Foundry, Heroku
- JavaScript, CoffeeScript, Objective-C, Python, Java, Smalltalk, C, PL/I, REXX
- HTML, CSS, Markdown, LaTeX, GML/Script, nroff
- Mac OS X, Linux, QNX, AIX, Windows, DOS, VM/CMS
- Visual Studio Code, Atom, Sublime, XCode, Eclipse, Smalltalk, KEDIT, XEDIT

- Redis, MongoDB, CouchDB, SQL, DL/I (but not deep on any)

# links

home page: <http://muellerware.org>  
blog: <http://pmuellr.blogspot.com>  
github: <http://github.com/pmuellr>  
twitter: <http://twitter.com/pmuellr>

# writings

A few years worth of writing on my blog

2017	<ul style="list-style-type: none"><li>• Modern.Web meetup - Profiling Node.js Applications</li></ul>
2016	<ul style="list-style-type: none"><li>• NodeSource presentation - Using NodeSource on Cloud Foundry</li><li>• NodeSource presentation - Profiling Node.js Applications</li></ul>
2015	<ul style="list-style-type: none"><li>• Node Interactive - introduction to profiling Node.js applications</li><li>• Nodevember - making your JavaScript debuggable</li><li>• RTP Node meetup - es6 goodies in node 4</li></ul>
2014	<ul style="list-style-type: none"><li>• connect.js - "node.js on a paas"</li><li>• RESTFest - "server-sent events"</li><li>• Triangle Cloud Foundry meetup - "what happens when you push a node app"</li><li>• Triangle node.js meetup - "debugging node"</li></ul>
2013	<ul style="list-style-type: none"><li>• IBM Cordova meetup - "building and debugging Apache Cordova apps"</li><li>• GOTO Nights - "debugging mobile web apps"</li></ul>
2012	<ul style="list-style-type: none"><li>• Mobile JavaScript Summit - "debugging mobile web apps"</li><li>• PhoneGap Day EU - "debugging cordova apps"</li><li>• PhoneGap Day US - "debugging cordova apps"</li></ul>
2011	<ul style="list-style-type: none"><li>• OSCON - "Debugging Mobile Web Applications with weinre"</li></ul>
2010	<ul style="list-style-type: none"><li>• "console.table() proposal"</li><li>• "weinre - WEb INspector REmote - report"</li><li>• "Remote Web Inspector - Baby Steps"</li></ul>
2009	<ul style="list-style-type: none"><li>• "A Survey of Data Display in JavaScript Debuggers"</li></ul>

2003	<ul style="list-style-type: none"> <li>• OOPSLA Workshop "Pervasive Computing" - "Java Community Process and Embedded Java User Interface"</li> </ul>
1998	<ul style="list-style-type: none"> <li>• Smalltalk Solutions - "Smalltalk in the Network Vehicle"</li> </ul>
1997	<ul style="list-style-type: none"> <li>• Smalltalk Solutions - "Interfacing Smalltalk Systems to the Web"</li> </ul>
1996	<ul style="list-style-type: none"> <li>• Smalltalk Solutions Panel "Smalltalk and the Web" - "The Future of Application Development for the Web with Smalltalk"</li> <li>• OOPSLA Workshop "Toward the integration of WWW and Distributed Object Technology" - "Use of HTTP as a Transport for Distributed Object Systems"</li> </ul>
1995	<ul style="list-style-type: none"> <li>• Smalltalk Report - "Building a Gopher from Sockets and Widgets" Republished in "Wisdom of the Gurus: A Sigs Developer's Guide", ISBN: 0134998499</li> <li>• OOPSLA Workshop "Objects, Scripts and the Web" - "Smalltalk Scripts for the Web"</li> <li>• OMG CORBA - "IDL Mappings for Smalltalk", co-author</li> </ul>
<= 1994	<ul style="list-style-type: none"> <li>• REXX Language Symposium, "The Design and Implementation of REXX Object Extension - ROX"</li> <li>• IBM Technical report, "REXX Source Level Debugging with System Exits"</li> <li>• IBM Technical report, "The Design and Implementation of REXX Object Extension - ROX"</li> <li>• IBM Technical report, "cPost - Typesetting C Language Files With PostScript"</li> <li>• Forward to Book: "OS/2 2.1 REXX Handbook: Basics, Applications, and Tips" By Hallett German</li> </ul>