

# Paul L. Boone

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## Skill Summary

- Practical communication, organization, and project management skills from completing over 25 software consulting projects in the last four years.
- Lightweight application development skills with Ruby on Rails, Merb, Grails, and Flash ActionScript, with deployment to scalable enterprise Java environments.
- Low-level ruby engineering experience from developing ruby database infrastructure code and dealing with ruby-language-specific issues (e.g. the ruby language architecture penalty, the metaprogramming penalty).
- Extensive background in software engineering ranging from sophisticated object-oriented applications development to database management system design, systems software, algorithms and low-level embedded process controllers.

[Technologies: Ruby, C/C++, .NET, SQL, git, subversion, Dynamic-C for Rabbit Microcontrollers, GPIB, Serial and Ethernet communications]

- Comprehensive background in web technologies spanning information architecture, front and backend technologies, model-view-controller application design, database and web application development, and server configuration.

[Server Technologies: Ruby, Merb, Rails, Grails, Java, JRuby, Servlets, Spring Framework, XML, XSLT, PHP, CGI, SSI, MySQL, .NET]

[Client Technologies: W3C-Compliant HTML/XHTML, CSS, JavaScript, Adobe Flash, ActionScript 2/3, W3C-Accessibility Standards]

## Recent Speaking Experience

**Merb, not rails? A practical introduction to a new framework**

**16 Sept 2008**

East Bay Ruby Meetup: <http://ruby.meetup.com/81/calendar/8587007/>

## Recent Consulting Experience

**Semantic Ruby Database for Data-Grid (data-grid.com)**

**2007-Present**

- Primary developer and co-architect of a semantic Ruby database that (a) automatically loads objects into memory, eliminating the need to write any database-specific code, (b) has a semantically powerful but readable query syntax that makes it possible to easily write queries that are extraordinarily difficult to write using SQL and a relational database, and (c) handles complex

data types such as images, movies, audio tracks as semantically-queryable entities, instead of as meaningless BLOBs.

- Built core code modules including the index system and indices (initially supported Linear Hash, B\*-Tree, with future support for R-Tree and other type-specific indices), the thread-safe transaction system (implemented with a pessimistic algorithm, with option to move to optimistic or MVCC), and the storage system (incremental and batch load).
- Developed prototype applications in Rails, as well as multi-threaded application tests in Ruby.

[Technologies: Ruby, Java, Rails, C]

**Merb Faculty Content Management System for San José State University** **2008-2009**

- Developed custom content management system for managing more than 3000 faculty accounts.
- Resolved difficult data migration issues stemming from migrating two related but disjunct legacy systems into one new solution.
- Submitted patches to Merb team to handle pre-1.0 bugs with deploying Merb to a Java Tomcat server via JRuby.

[Technologies: Ruby, Merb, ActiveRecord, Java, JRuby, Apache Tomcat]

**Training Simulations for Gap / Ann Taylor** **2008**

- Managed team of Flash developers to build training simulations with gameplay aspects for teaching new employees (a) the basics of customer service, and (b) how to sell branded credit cards.
- Responsible for ultimate deliverable, integration with client infrastructure, and deployment testing to corporate-specific environments.

[Technologies: ActionScript 3, Flash, Javascript, Windows HTAs]

**Content Management System Upgrade for San José State University** **2007-2008**

- Source modifications to OpenCms open-source content management system with additional module development:
  - Wrote custom authentication module for integration with campus RADIUS server.
  - Integrated the XStandard accessible WYSIWYG editor into OpenCms. Released as open-source.

[Technologies: OpenCMS, Java, XStandard, RADIUS, Eclipse, Tomcat, JavaScript]

**ClarityNet Training Integration for San José State University** **2007-2008**

- Upgraded a pre-packaged legacy ASP Classic application and integrated it with the campus's infrastructure by writing a modern .NET application wrapper that (a) provided secure authentication integrated into the campus's RADIUS authentication server, and (b) correlated the login with data from the campus's PeopleSoft database.

[Technologies: ASP Classic, C#/ASP.NET, RADIUS]

### **Flash Employee Training Simulation for Ann Taylor**

**2006-2008**

- Built a training simulation with B3 and Co (a creative consulting company based in New York) that interactively teaches Ann Taylor employees about each season's new line of clothing. The simulation has the employee help digital customers by building (hopefully) attractive outfits out of different pieces of clothing.
- Led the technical development of the simulation: worked directly with the principal creative director to make decisions regarding technical implementation of creative content; defined development requirements for all assets (graphics, video, sound, text) to be incorporated into the software; made implementation decisions to account for future evolution; developed entire system.
- Developed two versions of the software simultaneously for two different kiosk platforms with widely differing capabilities (one based on Windows NT and the other on Windows XP), both platforms requiring custom integration work.
- Worked with the technical staff at Ann Taylor to ensure a safe installation of the software at over 800 stores.
- Managed the development of the software on a very accelerated delivery time frame, where final creative decisions were made the weekend prior to final delivery. Delivered the project on time.
- Designed software to require a minimal amount of work for each successive seasonal delivery. The second delivered seasonal required less than 1/6th of the work of the initial development.

[Technologies: Flash 6.0 Player, Flash 8.0 Professional, ActionScript 2.0, HTML, CSS, JavaScript, VBscript, C, HTML Applications (HTA's), Nullsoft Scriptable Install System, Wise Installation System, Subversion Repository]

### **Social Network Visualization Tool for the Showtime Network**

**2007**

- Co-developed flash-based social network tool for visualizing user connections in new L-Word branded social network. Go to <http://www.ourchart.com/> and then "View the Chart."

[Technologies: Flash 9 / AS3]

### **News / Press Release Web Application for San José State University**

**2007**

- Lightweight application development using Grails and deployed on a Java Tomcat Server.

### **Integrated Campus Calendar for SJSU Student Affairs**

**2006-2007**

- Managed the development of a new online calendar system for the Division of Student Affairs and its departments. Developed a new Java frontend using XML / XSLT for preexisting backend solution, and worked with the division on prototyping the solution for campus-wide adoption.

[Technologies: Java, Spring Framework, XML, XSLT]

### **XMPP Messaging Solution**

**2006**

- Developed XMPP object framework in AS3 for an application requiring asynchronous real-time communication from within the client's web browser.

[Technologies: Flash 9 / AS3]

**Content Management System Integration for San José State University** **2005**

- Created an OpenCms-powered content management system to manage the departments, colleges, and small organizational units that compose the university.
- The system:
  - Seamlessly integrates into and supports the university's existing design and technology templates, and enforces university style guidelines to help ensure a uniform experience for all website visitors.
  - Makes it easy for administrative staff to upkeep their organizations' websites without requiring any technical assistance, thereby freeing the campus webmaster to focus on improving the campus web infrastructure rather than updating individual websites.
  - Simplifies conversion to the new system, by automating the conversion of the two old template designs into the new OpenCms templates.
  - Currently manages over 90 University websites.

[Technologies: OpenCMS, Java, Servlets, Eclipse, Tomcat, Javascript]

**Fistula Foundation** **2005**

- Developed a custom shopping cart system specifically tailored to the needs of a non-profit organization. Solution included administrative interface to allow the foundation to change and update their donation levels without requiring additional consulting time. The foundation typically accepted over \$500,000/year in donations through their website.

[Technologies: PHP, Perl, XHTML / CSS]

**Past Consulting Experience**

**Website and Web Application Development** **2002–2004**

- Managed and implemented complete website redesigns—from content organization and writing style, to technology infrastructure, to graphic design and presentation—for small to large organizations.
- Developed web applications and tools for managing content, calendars, online polls, mailing lists, obfuscated email contact info, shopping carts, integrated website search, and ecommerce connections.
- Worked directly with clients, non-profit boards, and committees to create websites that fulfilled all stakeholder objectives.

**Custom Semiconductor Application Development** **1998–2005**

- Designed, programmed, installed and documented over 15 integrated semiconductor test systems for companies such as Intel, Fujitsu, National Semiconductor and Karl Suss Japan.
- Developed embedded process controllers for controlling custom-built testing hardware.

- Applications were custom developed to fit into the client's exact testing process, and were typically composed of configuration interface, testing logic, measurement retrieval via external instrumentation (GPIB, RS232, Parallel Port, TTL), graphing and reporting, and data storage.

**Freelance Reviewer for MacHome Journal**

**1995-1999**

- Wrote software reviews. Was the only reviewer to survive three editor changes.

**Education**

**San José State University, 2002:**

- B.S. Science and Technology in a Global Environment, Magna Cum Laude. (This degree included graduate courses in Applied and Abstract Mathematics, World History and International Communication, as well as advanced work in Economics, Biology, Physics and English).
- Student President of the Honor Society of Phi Kappa Phi.