

# Richard W. Di Muzio

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## Professional Summary

Experienced **Software Engineer** with a talent for developing user-need driven applications using the most appropriate technologies, or creating them when required.

- Listens well to the need of the client, recommends and implements strategic solutions
- Versatile, with demonstrated success in any combination of roles including project manager, analyst, engineer or DBA, even network admin.

## Technical Proficiency

**Industrial Automation:** Kuka Robots, Mitsubishi PLC, Wago PLC, Digi Rabbit Board, Android, Raspberry PI, Red Lion Controls, Xbee, Codesys, Crimson 2, Crimson 3, GX Works, GX Developer, Ladder Logic, Ladder Diagram (LD), Structured Text (ST), Sequential Function Chart (SFC), Function Block Diagram (FBD), Datalogic's PPT Vision UI.

**Languages:** Java, C, C++, C#, Visual Basic, COBOL, Assembler(AVR, 6502), Informix 4GL, Shell Script,

**Database:** Oracle, MySql, MS Access, Informix, SQL, PL/SQL, Triggers, Query Optimization

**Web Development:** HTML, CSS, Javascript, JQuery, Ajax, PHP, Flash, Wordpress, Joomla, Oscommerce, Google Maps API

**Enterprise Resource Planning (ERP):** PeopleSoft 3.11 to 8.04, HRMS, PeopleTools, SQR, Crystal Reports

**Office Applications:** Flash, Photoshop, Fireworks, Dreamweaver, Office/Open Office/Google Docs, Basecamp, Klok, vi

**Communication:** Wi-Fi, TCP, UDP, Modbus, SPI, I2C

**Operating Systems:** Unix/Linux, VMS, Windows, Android

## Professional History

### **Automation Solutions**

Beaverton, OR

2011-2013, w/contracts back to '07

### **Software Engineer**

- Instrumental in the initiation, development, installation and support of dozens of control software projects, typically attached to specialized machines and R&D prototypes.
  - Leveraged years of experience and thorough understanding of the development cycle to ramp up quickly into new areas of technology such as kuka robot control, PLC Ladder logic. Exploited personal knowledge to effectively innovate, for example wrote a PLC simulator in C that reduced R&D time and improved extensibility/maintainability and became the framework for an entirely new class of project.
  - Adept at understanding then formalizing the user's needs from vague or incomplete specifications as exemplified in the gold screeder project – napkin to Android controlled monster vehicle in six weeks!
  - Preferred standards when available, but could innovate when design constraints demanded such as when the truck sized oven engineers selected "web" as the preferred way to control their old PLC or the etch station's Wago PLC needed to talk to Matlab through a proprietary interface.
  - Ability to see through the end user's eyes and responding to how confusing an "engineered" application can feel, encouraged simple navigation and the form-is-as-important-as-function aesthetic by setting a baseline for quality for screen look and flow; as a result became the "go-to" person for user interface design.

- Stayed flexible because last minute hardware changes often seriously impacted software design – every project. Effectively able to juggle the development and support roles – every day.

Select projects: Apple box palletizing robots, truck sized automated bread oven, water treadmill for veteran rehabilitation, robot electrode inspection/etch station, airbag cartridge inspection robot, PAC-ML canning station, semi-truck carrousel turntable, chemical reclamation station using repurposed HW, chemical etch bath, wireless beacon light station system, automated semi-truck motor starter, starter QA test box, rock crushing quarry, “portable” gold screeder, wafer etch cleaning station retrofit, webify semiconductor manufacturing waste recovery system data, automated boat sliding doors.

***Rich DiMuzio Consulting***

Portland, OR

2005 to Present

**Owner/Independent Contractor**

**SELECTED CONSULTING PROJECTS:**

As a UI designer: (2007-2008): Designed and programmed the user interfaces for a variety of touch-screen based industrial controls including: a room sized oven, auto dealership car turntable and machinists mill for submarine doors.

As web developer for hire: All aspects of web development, from simple web pages, to elaborate web applications. Involved in requirements gathering, specification writing, proposal writing, database design, page/application design, external module interface, implementation, and artwork. The most complex app was villagehome.org, written in PHP/MySQL and consisting of 150 modules and 50 tables, provided all the functionality of a small school, including course-catalog/shopping cart, CMS, teacher blog, multiple campuses and backoffice administrative functions.

As LLC member and director of IT at fortetfriends.com, collaborated with other members to define an innovative approach to the often tedious task of music study – practice. My roles varied: as director, managed user IT expectations without stifling the creative process, defined phased implementation plan and timelines, contributed to the incubation of an amazing technology. As developer, coded the proof-of-concept system, the web 2.0 based frontend, dynamic streaming audio manager, plus provided custom backoffice audio processing tools and database that glued all the systems together.

Examples of website work:

<http://www.automationsolutions.cc>

<http://www.villagehome.org>

<http://www.brittsitter.com>

<http://www.thewaywework.com>

***Village Home Education Resource Center***

Beaverton, OR

2006-present

**Web Developer**

- Wrote a complex PHP/MySQL web application to automate a tedious paper-pencil process of registering more than 600 students for classes, workshops, and field trips 3 times each year, at 2 campuses.
- Developed, from scratch, 150 modules and 50 tables that provided full functionality of a small school,

including course-catalog/"shopping cart," Content Management System (CMS), teacher blog, multiple campuses and back-office administrative functions.

- Analyzed existing systems including various spread sheets and databases, proposed a central repository for core data enabling one-stop access to updated information and eliminating redundant/obsolete data.
- Gathered project requirements and wrote technical proposal, which was reviewed and accepted by the Board. Provided technical consulting throughout project with executive leadership team to update on progress and gather feedback.

### ***Topaz Hotel Services***

Oakland, CA

1998 – 2005

#### **Senior Application Programmer**

- Designed and implemented hotel reservation processing application that allowed independently-run boutique hotels to process online reservations. Systems were profitable from the start, growing within 2 years to become the **largest producing division within the company**, with exceptional client satisfaction ratings from both the end users and administrator clients. Exceeded expectations of management and the president, **programs became the backbone for spinoff projects**, and due thoughtful and careful design tenets, have functioned over a decade with only minor revisions.
  - Core Systems: complex web-based reservation booking engine, web-based client administrative interface, and detailed administrative charting for sales volume and marketing trends.
  - **Consulted with company executives** to identify project goals and analyze existing systems, then proposed overall strategy and project plan.
  - Developed more than 60 interrelated programs using Java, C, C++, PHP, Flash, and Informix 4gl, thoughtfully writing code in a robust, manageable and maintainable manner.
  - Served as database architect and administrator, achieving a **record of zero down-time** due to data management issues in a 24/7 environment. Utilized data-mining techniques and optimized SQL queries, which allowed for real time access to complex datasets.
  - Conducted 2-hour face-to-face "train the trainer" sessions for groups of 4-6 senior managers, enabling new users to quickly and easily understand and use new system – **meeting an overall goal to provide seamless customer service.**
  - Consulted with customers during sales calls, using thorough IT understanding and **ability to speak about technology in a non-technical manner** to guide users through confusing issues in a positive way.

### ***Amazing Travel, LLC***

Walnut Creek, CA

2002-2003

#### **Application Developer**

- Designed and implemented a boutique travel website from scratch, working within tight time and budget constraints to successfully launch new site within weeks.
  - Met with principals, gathered ideas, and recommended strategies to leverage external data to simplify content research and data delivery. Once strategy was adopted, **R&D costs were reduced dramatically, which expedited time to market on future products.**
  - Exploited agile development strategies using PHP, mysql, web services and SOAP and delivered a content rich website, which was well received by the principals and was launched on time.

**Ross Stores**

Newark, CA

2002

**Programmer**

- Enhanced in-house custom payroll interface for PeopleSoft upgrade from version 7 to 8, **completing project ahead of schedule** resulting in an invite to join QA team.
  - Analyzed differences between versions, then proposed and implemented changes in COBOL, and designed and executed tests to ensure proper functioning within normal and unusual circumstances.
- Worked with end-users to QA the upgrade and confirm validity of upgrade data, using SQL to reconcile data discrepancies as they were identified, which **made the upgrade less stressful and more accurate**.

**Westaff, Inc.**

Walnut Creek, CA

1999-2002

**Senior Programmer**

- Improved the accuracy and efficiency of day-to-day business operations through the use of technology. As support team: Understand and support all technical aspects of a large payroll with numerous PeopleSoft payroll/HRIS customizations. Projects: Welfare-to-work tax credits send and receive, correct payroll posting errors, workers compensation liability reports, voluntary health benefits annual open enrollment. Departments involved: Payroll, Tax and HR. Net results were savings of thousands of dollars in tax penalties, hundreds of man-hours because of automation. My contributions were officially recognized socially – I embodied their customer-service credo – and monetary through an incentive bonus.
  - Interfaced with end users to understand their needs. Use analytical skills and knowledge of the underlying database structure and existing systems to propose design specification and end user documentation. Sometimes it was merely a report, other times it was a complete end-to-end automated solution. Once programmed, I trained end user in its use.
  - Programmed the solution using the appropriate tool including SQL, SQR and COBOL. Ran alpha and beta test programs, and produced documentation that was reviewed by the end user for final approval.
- Oversaw migration from PeopleSoft to Lawson Billing, saving \$xxx in licensing fees, which was enough savings to cover the cost of the entire migration.
  - Developed strategy on multi-department project by running the steering committee meetings.
  - Created various conversion programs required to reconcile two distinct billing systems.
- Moved 500,000 employee records in one night without interrupting payroll operations. This strategic consolidation project resulted in annual savings of more than \$500,000.
  - Succeeded where others had failed by proposing a unique strategy of highly optimized SQL that enabled the project to be completed in the time allotted.

**Zen Systems, Inc. at Ross Stores**

Sausalito, CA

1997-1998

**Project Manager/Programmer**

- Managed the PeopleSoft payroll upgrade from version 5 to 7 ensuring uninterrupted payroll services and on-time delivery of project.
  - Led weekly meetings with department heads and managed 4 programmers through all stages.
  - Leveraged analytical and project management skills to ensure progress on multiple priorities, including ongoing development, upgrades and patches.
- Negotiated the timely implementation of patches and tax updates with other IT departments. Received recognition for negotiation, organizational and analytical skills, and was selected to manage the upgrade.

**Westaff, Inc.** Walnut Creek, CA 1996-1997

**Senior Programmer**

- Wrote the conversion programs to migrate payroll from ADP to PeopleSoft, which enabled in-house payroll processing, **saving tens of thousands a year in processing fees.**
- Extended PeopleSoft functionality by creating a new direct deposit program called "PayTM," which benefitted hundreds of employees but only added 5 minutes the payroll department's daily work load.

**Zacson Corporation** Pleasanton, CA 1995-1996

**Senior Applications Programmer**

- Overhauled GTE Long Distance call center programs for multi-lingual use, which enabled multi-lingual operators to better serve a more diverse customer base in the customer's native language.
- Designed revolutionary US Sprint call center programs, including a highly modular and "scripted" format that reduced training time, improved call performance, and **cut enhancement time from 2 weeks to 2 days.**

**San Francisco Reservations** San Francisco, CA 1991-1995

**MIS Director**

Inbound reservations call center serving hotels in the Bay Area.

- Wrote call center application for an automated reservations system which increased productivity more than 7 times.
- Merged three separate technologies into a single streamlined process to generate a monthly newsletter. New process was praised for the quality and depth of analysis and was widely used by management to track key marketing data and make strategic business decisions.

**Early Career Accomplishments:**

- Programmed 3 home console video games for the Atari platform

## Education & Training

**Associate's Degree, Management Information Science, Canada College,** Redwood City, CA

**Advanced PeopleSoft Training, PeopleSoft,** Pleasanton, CA

- Tools I, Tools II, PeopleCode, Introduction to HR, and Introduction to Benefits

**Oracle Training, Oracle Training Center,** San Francisco, CA

- Introduction to Oracle SQL and PL/SQL, Enterprise DBA Part 1A, 1B

**Kuka Robotics, Kuka College, Detroit MI**

- Beginning Robot Programming, Advanced Robot Programming

**Hobbies/Interests**

Webmaster for local non-profit companies. Experimental hardware/software. Digital electronics for music creation. Crossword puzzles. Jigsaw puzzles. Video game programming.