

Richard Diaz

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Profile

Distinguished IT professional with comprehensive experience in business process analysis, technical requirements gathering and proven software architect with full life-cycle development, including design and analysis, implementation, system integration and quality assurance and devOps. Highly motivated, team oriented software engineer, network administrator experienced in multiple technologies, hardware and software platforms. Demonstrated ability to solve complex technical problems and quickly learn new technologies.

Experience

Hobsons

6/10 – present

Lead Software Engineer

Work on the design, implementation and maintenance of the SAAS early alert student retention system. The system is Java based using Spring, Hibernate, Postgres and ExtJS. It integrates with the following learning management systems (LMS), BlackBoard, Angel, Canvas, D2L, Moodle and SIS.

- Design and develop new system features.
- Recently working on improving our batch system and leveraging Docker, AWS SQS, ECS, S3 EC2 Auto Scaling, Cloud Watch
- Spring Boot microservice.
- Implement integrations with LMS, via SQL, REST API's.
- Create improvements on system integrations points.
- Work with DevOps in improving CICD, creating Jenkins projects, scripts, Cloud Formation.
- Wrote PL/pgSQL database triggers.
- Debug production issues.
- Perform tests and improve system performance.
- Assist with environment maintenance, Subversion, Maven, Jenkins.
- Maintain several linux EC2 instances for production hosted data adapters.
- Maintain EC2 instances for LMS used by development, QA and sales.
- Worked on deploying our data adapters to Docker containers.

University of Maryland, College Park, MD

5/06 – 5/10

Senior Web Services Developer

Design and implementation of Kuali Student System (<http://student.kuali.org/>). Involved with the design and interplay between services, the implementation of services and integration with Kuali Rice middleware using the following technologies, Metro web services stack, CXF, JAXB, JPA, Hibernate, Spring, Oracle, Derby and Standards such as JAX-WS, WS-*.

- Worked on the initial design and implementation of the Business Rules Management System using open source Drools rules engine.

- Developed an Abstract Syntax Tree using Antlr, that evaluated a boolean expression to provide the basis for rule failure or success.
- Integrated single sign on authentication, using Spring Security, CAS, SAML and WS-Security.
- Assisted in the development of the MVC framework which uses the Google Web Toolkit (GWT).
- Assisted in the standardization of the development environment which uses Subversion, Maven, Continuum, Junit, Eclipse, Derby.

University of Maryland, College Park, MD

10/02 – 5/06

Digital Imaging Group Manager

Designed and developed student information imaging system for undergraduate, graduate and international students. The system is based on Mindwrap's Optix server, Oracle DB and integrated with the university's backend legacy systems. It is designed to digitize and process through a workflow all documents needed in the student's admission process.

Maintain web based front-end to imaging system and monitor system for license usage and file system space. Perform System Administrative duties, create accounts, space allocation, and ensure system is up to date with patches and upgrades for the server and operating system. Work with DBA to maintain Oracle, monitor Tivoli backups, maintain Apache and Tomcat servers.

Developed custom web application to track licenses and file system usage from server logs and to allow account request for users, technologies - Java, JSP, JavaBeans, XML, XSLT, Oracle DB, PL/SQL, Apache, Tomcat

Programmed Web Services which allows request for Images from the digital Imaging system, on Tomcat with the XFire framework. Wrote scripts in Perl and VBScript to parse student application data and used OLE API calls in the Optix Archive Server to store the data. Automated the process by creating a VB ActiveX component that has FTP, SMTP functionality which is used by the supporting scripts. Programmed a supporting VB application used to find records and image collections for reporting and analysis based on user specified criteria.

iXL, Inc., New York, NY

7/99 – 5/02

iXL was a web consulting company. As a business analyst, clearly identify the business and customer requirements and communicated and documented them for the various organizational areas that relied on that information to define system requirements, user experience and organizational processes.

As tech lead, assisted business analyst in the discovery phase of gathering business requirements. Defined technical requirements and managed, motivated and guided software engineers, network administrators and web designer to ensure the clients goals were met on time. At times also served as liaison between the clients, project managers, business analyst, and core technical groups.

Designed and Developed e-commerce solutions for clients in a team oriented environment. Installed and configured applications in different platforms used for designing, developing and debugging.

Maintained GE websites by coding new features and debugging old ones using Java Servlets, Perl, JavaScript and Html. Administered the Netscape server for development and testing in a Unix environment.

Software Engineer / Administrator

Chase Autoportal

Designed the sites architecture and helped developed the base functionality using ASP, VBScript, COM and SQL Server that provide the loan and lease transaction processing. Assisted web designers with JavaScript and Html pages. Supervised quality assurance group.

GE Small Business

Designed and implemented the processing behind the business magazine portion of the site using Java, JSP, EJB, Javabeen, JDBC and Oracle. Programmed templates in Perl and XML for Interwoven content management system. Installed and configured and performed administrative duties for Weblogic running on a Solaris platform.

Financial Times

Designed the sites architecture and help code web page templates, including database queries using Open Market application server and XML in a Windows platform.

Other Tasks

- Wrote SQL, PL/SQL for Oracle and MSSQL Server as necessary. Assisted DBA in defining and developing database, procedures, and architecture, based on customer requirements.
- Installed and configured WebLogic, Interwoven – content management system, Webshpere, Tomcat, Apache, IIS on Unix and Windows platforms used for designing, developing and deployment on different projects.
- Solely updated code on GE Web sites running on Solaris 7, with Netscape iPlanet, Servelts, ssjs and Oracle 8. In addition administered the development and deployment server.
- Performed System Administrator duties on a Solaris 7 Unix system.
- Wrote Shell Scripts for daily maintenance cron jobs.

Mede America (now part of WebMd Corp.) West Seneca, NY 2/99 – 6/99

Programmer / Analyst

Developed programs in the Perl programming language on a Unix environment for a proprietary EDI processing system. The system connected payers (insurance companies) which each had their own report format with clients (hospitals, physicians etc.) who also submitted claims in proprietary formats. Specifically, programmed routers to route reports from payers to clients and spoolers which extracted information from reports to create a payer specific out file.

Laser Photonics Technology, Inc., Amherst, NY

9/98 – 1/99

Hardware / Software Consultant

As the sole consultant was responsible for managing the project, gathering technical requirements and designing and implementing the data acquisition (DAQ) system for

laser experiments. The system consisted of a PC DAQ card which interfaced with laser detectors and programmable GUI interface using LABVIEW software.

Education

M.S. Electrical Engineering, May 1998.
Specialization in Computer Engineering
State University of New York at Binghamton, Binghamton, NY.

Research area

A VLSI Self-Compacting Buffer for DAMQ Communication Switches.

B.S. Electrical Engineering, May 1996.
State University of New York at Binghamton, Binghamton, NY.

Publication

J.G. Delgado-Frias and Richard Diaz, "A VLSI Self-Compacting Buffer for DAMQ Communication Switches," *IEEE Eighth Great Lakes Symposium on VLSI*, Lafayette, Louisiana, February 1998, pp. 128-133.

Other Technical Skills

Languages: C, C++, and ASSEMBLY.
ASIC, VLSI circuit design using Magic, Spice and Irsim software.
Experience with logic design of standard cell and circuit verification.
ASIC chip testing experience.
CPU: RISC, 68000, X86.
Programming implementation of Neural Algorithms: Linear Perceptron, Piece-Wise-Linear, Hopfield, Back Propagation and Genetic Algorithms.
Fluent in Spanish, reading and writing.