

# Craig E. Ward

cew@acm.org

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## KEY QUALIFICATIONS

- Research comparing security vulnerabilities as manifested in various programming languages.
- Database programming: C, Perl, Java, JDBC, Hadoop, stored procedures, and SQL scripts for Oracle, SQL Server, and MySQL.
- Client/Server programming using both traditional listen/fork and boss/worker multi-threaded patterns.
- Web programming using HTML/XHTML, XML, XSLT, CSS, servlets, JSP, JavaScript, AJAX, and PHP.
- Team player and leader, effective oral and written communication; customer-oriented and a problem solver.

## EDUCATION

### Master of Science, Computer Science

Loyola Marymount University, Los Angeles, CA

December 2004

### Bachelor of Arts, History

University of California, Irvine, CA

June 1979

## EXPERIENCE

### Programmer Analyst, USC Information Sciences Institute

2005-date

- Wrote map/reduce Hadoop jobs implementing a K-Means algorithm in Java for network bandwidth experiments. (Abstract for paper accepted for the 2009 I/ITSEC conference.)
- Ran performance tests using OneSAF in a clustered environment.
- Developed and deployed a PHP and MySQL application that processes errata, both submissions and secure validation, for the RFC Editor.
- Redesigned the database schema and enhanced PHP workflow application for the RFC Editor. Enhancements included document cluster support and public display.
- Assisted Criticality-Sensitive Coordination (CSC) Project with trade show web demonstration using AJAX.
- Software development, analysis, and support of Joint Experimentation on Scalable Parallel Processors (JESPP) Project for USJFCOM J9 Directorate and HPCMP.
- Wrote two research papers describing results of the project and lessons learned.
- Java programming utilizing Java Server Pages, servlets, JDBC, and RMI for OLAP enhancements to the Scalable Data Grid (SDG) on the MySQL database management system.
- Additional programming using C/C++, Perl and shell scripting in Linux environment.

### Graduate Assistant, Teaching Assistant, Loyola Marymount University

2003-2004

- Assisted instructor of undergraduate course in operating systems by reviewing background material on Unix and C programming and grading student homework assignments.
- Assisted staff with data cleanup using Access, FoxPro and Banner and provided other support as needed.

### Consultant/Software Engineer, Sierra Systems Group, Inc.

1994-2002

- Designed and developed systems using C, Java, shell scripts, HTML, CSS, XML, XSLT, servlets, JSP, JavaScript, TCP/IP, Transact-SQL, Oracle, Pro-C, JDBC, and J2EE (WebLogic) for Unix, HP/UX, Linux, Windows NT/2000 platforms.
- Used Apache and IIS web servers to ensure W3C standards compliance.
- Designed and implemented relational database for client-server interface to legacy IMS database.
- Technical team leader, code librarian (RCS and PVCS), build coordinator, and test team leader.
- Led technical team for a Y2K project that successfully designed, developed, and deployed the replacement system so the client organization could continue operations.
- Mentored junior staff.
- Utilized structured programming and object-oriented programming methodologies including UML Use Cases.

### Professional Staff/Software Engineer, PRC Public Sector, Inc.

1992-1994

- Successfully advocated the use of UDP for client-server architecture for LAPD 911 dispatch system.
- Designed and implemented state table pre-processor tool for message switching between system components.
- Wrote new I/O routines in C for legacy Fortran code ported from PDP-11 to VMS.
- Integrated third-party hardware into dispatch system to support Voice Radio Switch.
- Performed integration testing.

### Programmer Analyst, Systems Programmer, USC Information Sciences Institute

1981-1992

- Applications programming and maintenance: Pascal, Assembler, C, scripts for applications on Tops20 and Unix.

- Implemented production version of an experimental email system. Co-authored RFC1168 about that system.

#### **CERTIFICATIONS and PROFESSIONAL ASSOCIATIONS**

- Sun Certified Programmer for the Java™ 2 Platform
- IEEE Computer Society
- Association for Computing Machinery