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## Technical Expertise (Through Job Experience and Study)

- B.S. Mechanical Engineering from Kansas University
- Technical Project Management including Research/Design, Procurement, and Implementation;
- Web-based programming in PHP, MySQL, CodeIgniter MVC Framework, JavaScript, DHTML, DOM, XML, XSLT, AJAX, CSS, JQUERY, SVG, XML.
- PHPUnit for unit-testing of code
- Behat/Mink for behavior-driven code development.
- ArcView GIS.
- Several years of Technical Writing experience as a Process Engineer (8 years) who led technical projects where I wrote Design, Purchase, and Operational specification documents. I have also had two technical writing jobs, and I have done technical writing in other engineering and software jobs.
- Microsoft Operating Systems (XP, Vista, 7)
- Ubuntu Linux, LAMP environment programming
- Computer Networking Principles
- Microsoft Word 2003, 2007, and 2010
- Adobe InDesign
- Graphic image editing and format conversions
- Here is a link to an archive of my work:

https://www.asuswebstorage.com/navigate/s/48C5994088294AFE8F2B3CD91208DDB14

• Here is a link to a website of my work: <a href="http://www.rlsworks.com/ci/">http://www.rlsworks.com/ci/</a>

## **Professional Experience**

#### Software Developer/Research Assistant

- I was hired to a 5 week contract by Dr. Martin Schiller to write a program for an Organism Relation Ontology (ORO) Miner which provides hierarchical and graphical representation of the different Organ Systems and their sub-systems. I had previously completed a test program for extracting Motif (amino acid code patterns) relationships and statistics from proteins (large sequences of amino acid codes);
- Both programs use combinations of software languages: DHTML, CSS, XML, XMLDOM, HTMLDOM, JavaScript, MySQL, SVG, DOM, PHP, and others. I completed two programs for two different Organ System/sub-system data structures.
- These programs have event-driven GUI interaction for information selection from hierarchical tree display, and information display is in hybrid form node-based 2-D graphs and tables.
- These programs are on my website: <a href="http://www.rlsworks.com/ci/">http://www.rlsworks.com/ci/</a>
- The programs transformed MySQL database information to an XML database for application use. The programs use recursive iteration and active xml data objects for operation. I worked mostly from home on this project.

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- 1. Most recently, I have written a program with PHP, MySQL, JavaScript, Ajax, and Apache Server for UNLV Life Science Dept that found amino acid sequences in Proteins. PHP and Regex technology were used to create a MySQL database from text files of amino acid codes. DHTML, XML, JavaScript, Ajax technologies where used to write a gui that extracted the requested statistical information from a MySQL database.
- 2. I interviewed with the Southern Nevada Water Authority for a Water Systems Engineer position, and by Credit One for an .Net Programming postion.
- 3. I interviewed with Fortu-Net for a C++ Programming position.
- 4. I interviewed with Selling-Source for a Software Test Engineer position. The later was after completing a software programming assignment with phpunit and Behat/Mink Behavior Driven Development for unit-testing and application development of PHP code.

InsureZone	January 31, 2011 to April 11, 2011
1070 W. Horizon Ridge Pkwy. Suite 204 Henderson.	

#### Software Developer

- Web-based programming using XSLT, JavaScript, and AJAX to transform XML and HTML to Dynamic (D)HTML. The XML represented data for automated insurance quotations from on-line applicants. XSLT and Javascript (which both coded insurance rules per state) transformed the XML, and the HTML on the Insurance Carrier website, to (D)HTML submitted on the carrier websites to generate automatic insurance applications, which in-turn generated automatic quotations/declines/holds/etc from the insurance carriers in XML format. Used J-edit and Text-pad to code XML and XSL.
- Used Virtual Office technologies like Trillian and Desktop VPN
- Used File versioning software called Perforce
- Obtained job by completing their programming test
- Technical Writing

- Used Adobe In-Design to create product manuals for Electric Induction Motor Efficiency Controllers. This was for their existing and next generation products.
- Used Microsoft Word 2003/2007/2010 for editing
- Did conversion between PDF and Word formats
- Performed Graphic illustration format conversions
- Used Picasa software and Print Screen utility for Screen Capture
- Worked on Web-based-Knowledge-Repository using Microsoft Visual Studio 2010 and its LINQ-to-SQL feature.
- Edited the company technology white paper for better technology clarification.
- Gave consultation for improvement of engineering and corporate inter-relationship of processes. Helped formulate Product Requirement and Product Development procedures and documentation

- 1. During this time gap I was diligently seeking employment. I applied for hundreds of jobs and I had a good amount of interviews with companies like:
  - Cox Communications Product Engineer
  - Clark County Government GIS Programmer
  - Bally Technologies Software Engineering (twice)
  - UNLV IT position
  - City of North Las Vegas Business Systems
  - Analyst; Arcata Computer Programmer II
  - AgilySys Tech Trainer
  - Timet Process Engineer
  - AGS- Diamond Scribing
  - Operator; CPI Card Process Engineer
- 2. I also interviewed for several other Programming and Engineering jobs. I was registered with Job Placement agencies like Robert Half, TekSystems, Eastridge InfoTech, Link Technologies, and others. I had face-to-face interviews with these organizations and I attended by many Job Fairs.
- 3. I made volumes of applications online thru sites like:
  - JobConnect
  - CareerBuilder
  - Dice
  - Las Vegas
  - Review Journal Jobs, and others
- 4. Doing Job Applications was a full-time occupation with my main focus on IT, Technical Writing, and Engineering jobs.

Southern Nevada Health District......September 2005 to March 2006 625 Shadow Lane, Las Vegas, Nevada 89127 Environmental Health Engineer

- Review of Site Plans submitted to Clark County for Residential and Commercial development, to inspect whether water and sewer design meets county design criteria and safety standards (including proper relationship to public utilities)
- Learned and used Python programming language and Microsoft Visual Basic
- Used Microsoft Word to write Work Process Definitions for my Engineering Review processes
- Learned and used Microsoft Visual C#.Net programming language to write work process automation program
- Used Auto-Cad to inspect Land Development plans
- Learned and used Arc-View GIS to apply county design criteria to Land Development

• Construction work involving removal, transport, and disposal of rapidly accumulating debris in work areas to prevent the impediment of other concurrent construction operations in the building of a high-rise tower for Caesar's casino.

- Used Microsoft Word to perform technical editing of Nuclear Engineering directive and procedural documents in support of Bechtel Nevada
- Used Microsoft Excel to log a daily record of my work history

Center for Enterprise and Information.......January 2002 to February 2002 Clark County Government Building Systems Technician Trainee

- Temporary stint of Systems Technician experience of desktop maintenance of Windows 98/NT/2000 Operating System
- Use of Internet and Windows Networking Techniques to install applications on Desktop computers
- Hardware component replacement for Desktop computers
- Hardware and software imaging for automated install to groups of desktop units

College Student and Christian Ministry.....September 1996 to May 2001 Las Vegas, Nevada

- Served as a Deacon and Usher and Teacher and Outreach Leader at my church
- Served at the local Las Vegas Rescue Mission
- Attended classes at UNLV and CSN totally 140 credit hours in mostly Computer Science, Math, and Liberal Arts
- Received several academic honors including: National Collegiate Math Honor Society (UNLV), Human Behavior Student of the Year (CSN), NASA Science Scholarship (CSN), and others

- Provided Engineering Support to the Printed Circuit Board factory's chemical/mechanical processes with process and equipment optimization and design
- Performed the Lead Engineering responsibility in the procurement of two computerautomated optical inspection systems used for quality-verification of machining and circuitry inspection operations
- Designed mechanics and software algorithms which enabled system automation function of the optical inspection system
- Collaborated with in-house support departments (numerical programming, maintenance engineer, metrology engineering) in design of system software interfaces, maintenance and calibration requirements for the optical inspection system
- Authored the technical documents for Purchasing and Operational specifications of the system
- Led the design, procurement, and implementation functions including the provision of consultation to vendor design personnel during system build

# **Educational History**

- 1. The University of Kansas.....September 1980 to May 1983
  - Lawrence, Kansas
  - Degree/Credits: B.S. in Mechanical Engineering
- 2. Community College of Southern Nevada.....September 1996 to May 2002
  - Las Vegas, Nevada
  - Degree/Credits: 59 credits, 3.44 GPA
  - Studied:
    - Psychology
    - Computer Technology (Microsoft Windows, Oracle PL/SQL, Java, Novell and Windows computer networking)
    - Named Human Behavior Student of the Year (1997)
    - Received a NASA Science Scholarship

- 3. University of Nevada Las Vegas.....September 1998 to May 2001
  - Las Vegas, Nevada
  - Degree/Credits: 81 credits, 3.27 GPA
    - Studied mostly Computer Science, Math, and Liberal Arts
    - Recognized for Outstanding Academic Achievement from the UNLV Alliance of Professionals of African Heritage
    - Inducted into the UNLV Student Chapter of Phi Mu Epsilon Mathematical Association of America
    - Excelled in writing technical/mathematical computer algorithms such as:
      - Custom Database (with custom data structures and recursive search)
      - Digital Image Processing (with Discrete Calculus and Statistical techniques applied with Microsoft foundational classes to pixel matrix)
      - Parallel-Processing involving messaging between Unix system level processes within nested looping structure