

# JERRY FRANK JOHN BERT

## EDUCATIONAL QUALIFICATION

Master of Science in Computer Science, **University of Southern California**, Los Angeles, CA (May '10) **3.79 / 4.0**  
 B. Tech. in Information Technology, **PSG College of Technology**, Coimbatore, India (May '08) **8.93 / 10.0**

## RELATED COURSEWORK

Operating Systems, Computer Networks, Database Systems, Web Technologies, Analysis of Algorithms, Distributed Applications, Security Systems, Internetwork and Distributed Systems Laboratory.

## SKILLS

- **Programming Languages** : C, C++, Java
- **Assembly Languages** : INTEL 8085, 8051
- **Network Simulators** : Glomosim, OPNET IT Guru
- **Web Servers** : Apache, Tomcat
- **Database systems** : Oracle 8i/9i/10g, MySQL, XQuery
- **Operating Systems** : MS-DOS, Nachos, Unix, Windows 98, 2000, XP, Vista, Ubuntu.
- **Protocols** : TCP/IP, UDP, ARP, RIP, OSPF, BGP, DHCP, DNS
- **Routers** : Cisco 4000, Cisco 7000
- **Cloud Computing** : Google Apps, Microsoft BPOS
- **Google API** : Google Apps Provisioning API, IMAP API, GDATA etc
- **Web Development** : HTML, ASP, XML, XSL, DHTML/CSS, VB Script, JS, PHP, Perl, DOM, AJAX, JSON, REST, Web Services (SOAP, WSDL), Java Servlet, Google Gadgets, Joomla
- **Other Packages** : Wireshark, MS VB 6.0, Adobe Photoshop, Macromedia Flash, Net Beans, Altova XML Spy, MS Office XP, MATLAB 6.0, Net Beans 6, Dreamweaver, WAMP

## EXPERIENCE

### **Solutions Engineer, Sada Systems, North Hollywood**

**Feb '10 – Present**

- Worked on Cloud Computing using Google Apps and Microsoft BPOS
- Developed several scripts for provisioning users in Google apps and providing enhanced functionalities using Google Apps Provisioning API
- Created multitude of Google Gadgets to construct websites using Google Sites
- Migrated hundreds of users for several clients from legacy systems like Microsoft Exchange, Groupwise to Google Apps.
- Hands on experience with Active Directory, LDAP, DNS, Google Apps Scripts, IMAP Email Migration, Docs API etc

### **Web Developer, Los Angeles**

**Oct '09 – Jan '10**

- Developed various websites using HTML, CSS, PHP, JavaScript. The web pages are designed search engine friendly and also incorporated various advanced SEO techniques like VSEO and affiliate marketing to drive more traffic to the site.
- Created several E-Commerce websites integrated with 3dCart shopping cart system

### **Intern, Tata Consultancy Services, Chennai**

**Dec '07 – Apr '08**

- The project was a consulting cum replacement engagement aimed at providing a COTS based solution for a Nordic Telecommunication provider using Siebel CRM, Portal for BRM and Oracle Fusion middleware
- Worked in the NSM module to develop *As-Is*, *To-Be* implementation and finally delivered the POC to the client

## RECENT PROJECT WORKS

### **Intra-domain Route Oscillations – Cisco 4000 and Cisco 7000 Routers** **Fall 2009**

- Reproduced Persistent Route Oscillation condition between BGP Route Reflectors using Cisco Routers (RFC 3345)

### **Automatic Worm Fingerprinting in Linux – Netfilter – C++** **Fall 2009**

- Developing an automatic worm fingerprinting and detection algorithm using the Linux kernel Netfilter framework.
- Working on a firewall module to successfully identify and isolate existing and unknown worms from network traffic

### **Blackholing, Sinkholing and Traceback** **Fall 2009**

- Implemented real ISP techniques of Blackholing, Sinkholing and Traceback to mitigate DDoS attacks.

### **TCP Flow Behavior and Service Differentiation** **Fall 2009**

- Analysis of TCP Flow Behavior and Service Differentiation using FIFO and RED queuing disciplines.

### **Trojan Blogger – LAMP** **Summer 2009**

- Created a Blogger program where users can sign up and maintain blogs using PHP and MYSQL

### **Flickr Google Maps Mashup – AJAX – JSON – REST** **Spring 2009**

- Developed a Google maps application with images retrieved from Flickr database. This also provides a street view

- CrossWord Puzzle Solver – HTML – Javascript – DOM** **Spring 2009**  
 •Developed a CrossWord puzzle Solver program that parses an XML file, retrieve the required data using DOM
- Multi-threaded Distributed Online Shopping server – C++ Pthreads and Java – TCP Sockets** **Spring 2009**  
 •Developed a distributed Online shopping server with Client- Server Interaction  
 •Implemented the same functionalities as Java RMI and Web Services using Tomcat web server and Axis
- Peer-to-Peer application with IP Multicasting for groups – C++ – Java Swings** **Spring 2009**  
 •Developed an application which lists the cultural associations, allows join/leave a group, broadcast messages and live chat with the members of the group using multithreaded peer to peer paradigm – Includes Unicasting and Multicasting
- Comparison of Advertisements in www.google .com and www.live.com search – Perl** **Spring 2009**  
 •Built this application to compare the sponsored links of both the search engines for the given query
- Operating System Development – Nachos – C/C++** **Fall 2008**  
 •Used Nachos operating system to implement and test various subsystems of an operating system like System calls, Thread synchronization, Multi-programming, Virtual Memory, Basic Networking. The Implementation involved Locks, condition variables for multi-threading ; TLB, IPT, PT & swap file for VM  
 •Implemented a Senate Payphone System in a fully redundant mode server configuration
- Energy Efficient Routing in Wireless Sensor Networks – Glomosim and C++ – Parsec**  
 •Developed an energy efficient routing algorithm in Wireless Sensor Networks where packets are routed based on the available energy level in each node and also the distance between the nodes.
- Socket Program – C – TCP & UDP** **Fall 2008**  
 •Simulated a race of mobile units that identify a target with the help of check-points
- Database Design** **Fall 2008**  
 •Created a conceptual schema and developed a relational database model to maintain parking information.  
 •Designed an XML schema with stylesheet to query and manage XML data for hospital management system.
- Network modeling for performance planning and Analysis using OPNET IT Guru Academic Edition** **Fall 2008**  
 • Simulated the performance of LAN (with hub & switches) showing the effects of CSMA/CD & analyzed OSPF, RIP
- Conducted Network Protocol Analysis using Wireshark** **Fall 2008**
- PAPERS PRESENTED**
- 
- Graphical Passwords:** Awarded first prize in the paper presentation contest “Brahmastra” conducted by Indian Society for Technical Education (ISTE)
- Virtual Environment for secure login:** Secured first prize in EQUINOX '07 paper presentation contest. Suggested a novel method to implement secure login using 3D Virtual Environment.
- TRAINING AND OTHER ACTIVITIES**
- 
- Attended workshop on Embedded systems and Micro-controllers conducted by PSG CII TDB Tnet Centre
  - Member of Indian Society for Technical Education (ISTE), 2005-2007