



Dhirendra Kumar

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OBJECTIVE

Looking for a challenging career in design and development of software applications using leading edge technologies.

PROFESSIONAL SUMMARY

- Currently working in IBM-ISL India Pvt. Ltd as a **Senior Staff System Software Engineer** (IBM Server group).
- **10** years of IT product development experience, including experience in leading and teams/ features/ products.
- Strong experience in embedded design and development and System Software using C/ C++, Enterprise Architecture and Linux.
- Strong knowledge of OOA and OOD with exposure to Design Patterns.
- Experience in handling customer escalations and demands to customers (including hot-fixes/patches); interfacing with customers on technical/ product matters, helping in deployments at customer sites (onsite).

EDUCATION

- Master in Computer Application (MCA) from Cochin University of Science and Technology Kochi (India) completed in 2003 with 81.4% with second rank.

SKILL SET

Operating System	Windows, Linux
Programming Languages	C++, C ,Java
Other tools/technologies	XML, Enterprise Architect, Clear Quest, Rational Purify, Checker, Starteam, Trace-32, PC-Sink , TotalView, GDB
Domain knowledge	Virtualization, Cloud, Simulation, OpenSource etc.
Version Control tool	SVN, Clear case etc.
Project Management tools/methods	Agile, Scrum

PROFESSIONAL EXPERIENCE

Company: IBM-ISL

April 2011 to present

Role: Design and Development

Product: HMC/FSM (Hardware Management Console/Flex System Manager)

Operating system: MCP7

Programming language: C, C++, Java

Other technologies: CIM standard, XML

Product Description:- This is a technology created by IBM to provide a standard interface for configuring and operating partitioned (also known as an LPAR or virtualized system) for systems such as IBM System i, IBM System p, IBM System z, and IBM Power Systems. HMC/FSM is used for:

- Configure and manage logical partitions and partition profiles
- Perform DLPAR functions.
- Activate and manage Capacity on Demand resources.
- LPM (Live Partition Mobility)

I worked on following components of HMC:

Remote Restart of Partition: - When a host in a server system pool unexpectedly fails, this feature can use remote restart to maintain availability of your virtual servers and workloads within the pool.

Ecmd: This is a Manufacturing testing tool to check working of hardware spy/scom/node/cage/. My contribution includes writing command to verify this hardware.

NIST Security Support: This includes security improvement for IBM-flex server and Power Server. This feature support tls1.2 along with SSLV3 support.

CCM (Concurrent Maintenance) for Power Server: I led this feature to research, implement and deliver the addition of Hot/Cold repair and licensing feature for any defective node.

Company: CAE Simulation Technology

July 07 till April 11

Designation: Senior Software Engineer

Product: Simulation product <http://www.cae.com/Worldwide-Presence/cae-india-private-limited/>

Operating system: Windows

Programming language: C, C++

Product Description:

CAE India Pvt Ltd located, India has more than 20 years of experience in the field of simulation and has been providing leading edge solutions to India's defence forces for more than two decades. CAE India specializes in the fields of modelling and simulation software, real-time systems, and simulation-based training systems.

Some major projects on which I worked mentioned below:

Automatic Flight Extraction from video clip: This Task Consist of creating a Tool/application which will used to automatically extract numerical/Alphanumeric/Symbolic data furrentrom recorded Flight Tests executed in an Airplane.

The Videos from which the data must be extracted are recorded inside the cockpit of a flying aircraft. The Cameras are placed inside the Cockpit in such a way to not disturb the Pilot during the flight.

Task Consist of

- a) Stabilizing the image.

- b) Extracting data under numerical/alphanumeric/enumeration format, from different fields selected on the image.
- c) Modifying OCR, this can help to read any frame of Video.

Project Includes:

- a) Hough Transform implemented to identify line as well as Circle.
- b) Image Preprocessing (Correct Refresh Rate by clubbing multiple frames reduces flickering to generate clearer Frames).
- c) Video rotation (90, 180, 270 degree).
- d) Adjust Perspective (Tilted Video can be modified).
- e) Shaking of Camera while Capturing Video.

Tank T-90 :- The **T-90** is a Russian main battle tank (MBT) derived from the T-72, and is currently the most modern tank in service with the Russian Ground Forces and Army. The successor to T-72BM, the T-90 uses the gun and 1G46 gunner sights from the T-80U, a new engine, and thermal sights. Other name of T-90 in Army is called “**Bhisma**”

Task Consist of

- a) Simulation of Commander with Seat Shaker.
- b) Simulation of Gunner with Seat Shaker.
- c) Simulation of Driver with Motion System.

Runway : - The Project Runway consists in the delivery of entry Level-D Full Flight Simulators (FFS) in the Business Aviation Training domain.

In particular, these devices must meet very aggressive cost targets, which has forced both engineering and management teams to rethink better ways to define, build and validate these training devices

The concepts and strategies involved in the software solution of this particular project shall be re-used across other CAE product lines, from desktop training devices up to the 8000 series.

I have developed RMU (Radio Management Unit) for Cessna XLS, which was generic enough for RMU-850 and RMU-855. I did all analysis, design and coding of full model.

Design Model which we are using to develop this system is DM-V-VM (Data Model-View- View Model).

Company: SpikeSource

July 06 till July 07

Designation: Developer Analyst

Product: Application stack

Operating system: Linux

Programming language: C++

Other technologies: Shell scripts.

Product Description:

As part of pre-integrated open-source Software suites team , I owned the security module using the U.S. National Vulnerability Database (and part of the Intel Certified Solutions Program), and Amazon Web Services cloud computing tests and was responsible for major application integration, enhancements, testing and support. These included the popular testgen4web tool for scripted web site.

Company: Samsung**July 05 till July 06****Designation:** Software Developer**Product:** ZX20 handset.**Operating system:** Windows**Programming language:** C++**Product Description:**

Zx20 is a new mobile handset for Cingular; in this new features are Blue tooth (Adhoc-network). We are working on DUN, GAP, SDP, OPP, Handset, and Hands free profile.

This we need for synchronization of data from PC to PC or from Bluetooth enable mobile to Bluetooth mobile.

For this mobile I have written code for JSR-82 support, this helps to download Java games, which support BT, and with this we can play JAVA games.

Company: IBM**March 04 till July 05****Designation:** Software Engineer**Operating system:** UNIX**Programming language:** C++**Projects Description:**

Objectel: - It is a network management application designed to assist telecommunication and network engineers for creating facilities, assigning customer circuits and documenting the equipment used in providing data and voice communication.

To enable circuits to work with packet switching technology, client had taken initiative for C2P (circuit to packet) architecture. This provides the voice and data communication in a much more optimized way.

It worked on a client - server architecture, with network engineers using VC++ GUI to enter network information, thereby requesting server to manipulate network information, through XML messages to share data.

CRL_MMAPI:- This project is a **Research and Development** project for a Japan Based Organization that works on next generation technologies. We developed an API (supporting the simple audio and Video playback features) according to the JSR 135 (similar to mobile Media API from Sun Microsystems) to run for Sharp Zaurus SL- C750/C760.

PROFESSIONAL ACHIEVEMENTS

- CAE Gold award in 2010 Q1, for resolving key customer issues and implementing major design level improvements based on customer/field experience.
- Spikesource great Achievement award for resolving product issues reported by customers, and delivering pathes/hot-fixes.