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## EXECUTIVE SUMMARY

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Confident, results-oriented engineering leader with proven success in designing and managing operating system kernels, device drivers, embedded systems and application programming. Background includes effectively managing deployment of licensing software to prevent software piracy and royalty theft, thereby protecting and increasing software revenue for the company. Recent MBA graduate with specialization in Strategic Management and Entrepreneurship and strong technical expertise with MS and B Tech degrees in Computer Science and Engineering. A highly experienced engineer and manager with comprehensive strategic planning and implementation skills acquired over the last 10 years in a cutting-edge industry, seeking a position where these skills will add similar or greater value.

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## CORE COMPETENCIES

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Analytical thinker and effective team player with great interpersonal understanding. Highly organized with great attention to detail; experienced in Product Development Process (PDP) including software development lifecycle. Advance knowledge of control networking industry including intelligent devices and smart-grid. Expert in software programming in many languages.

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## WORK EXPERIENCE

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**Echelon Corporation, San Jose, California** May 2001 – present  
Echelon Corporation is leading the worldwide transformation of the electricity grid into a smart, communicating energy network by connecting utilities to their customers and enabling networking of everyday devices.

**Project Manager, Licensing Deployment** July 2009 – present  
Spearheading a project to introduce software product runtime activation and network capacity licensing scheme for software tools and devices used for smart network development and integration. This project would enable Echelon to prevent piracy of their software tools and theft of royalty revenue obtained through deployment of smart devices in networks around the globe, thereby increasing the net revenue many-folds. Responsibilities include:

- Manage and coordinate organizational requirements and deliverables between Engineering and other departments such as Finance, Order Admin, Operations and IT.
- Create and maintain a plan that communicates tasks, milestone dates and status among departments.
- Coordinate delivery of development and production releases among departments.
- Assist development and test teams in design and development tasks and in creating test plans and testing efforts.
- Act as a single point of contact for all licensing deployment related design, documentation, training and support.
- Understand behavioral characteristics of people from different departments and ensure that they work as a coherent team towards the successful completion of the project.

**Senior Software Engineer** May 2005 – present

- As part of a three-member team, leading efforts to design and implement product activation and licensing scheme and .NET based licensing tools using C# in order to protect against software piracy and royalty theft.
- Designed, implemented and maintained LonWorks (ISO/IEC, ANSI) based development tools in C and C++ that aid developers in creating Neuron C based smart devices easily and efficiently for networking those devices over media such as twisted pair, power-lines, fiber optics, and RF.
- Wrote communication drivers based on SPI and SCI protocols in C for the ARM7 family of microprocessors and a chip simulator in C++ during the development of Pyxos platform, an ultra-miniature, low-cost smart networking solution.
- Served as the principal engineer for designing and improving ShortStack Compact API in C to turn new or existing smart devices into networked, Internet-accessible LonWorks-enabled devices.

**Software Engineer** May 2001 – April 2005

- Co-architected and implemented the xLTA Secure Tunneling Protocol Engine (xDriver), a low level driver based on TCP/IP protocol and used for remote communication between smart LonWorks devices and computer based network management tools, in C++ on Windows platform; then made the Engine portable on VxWorks platform.
- Introduced new and advanced features in OpenLDV (Open LonWorks-Device) API using C++ such as support for dynamic changing of IP address in remote devices, reliability support during broken connections, and Remote Network Interface (RNI) simulator.

- Implemented various features in LNS (LonWorks Network Operating System) API using C++ including Dynamic Function Blocks, Virtual Network Interface (VNI) improvements and added metrics to measure and improve system performance.
- Created build scripts and installers for multiple products using DOS, Perl, VBScript, InstallShield and Windows Installer technology.

**University Of Illinois, Urbana-Champaign, Illinois** August 1999 – May 2001

**Research Assistant, MONET Research Group, Department of Computer Science** January 2001 – May 2001

- Designed and implemented a secure multicast protocol with copyright protection in C on UNIX platform to stream either live or stored video in real-time over the Internet.
- Architected and implemented a permutation based encryption scheme to be used for the multicast protocol.

**Teaching Assistant, Department of Computer Science** August 1999 – December 2000

- Responsible for teaching basic computer science and data structure concepts to First year undergraduate students using Java for the "Introduction to Computer Science" course at the University of Illinois.
- Managed Java labs for 90 First year students while helping students write programs in Java.

**Inktomi (later acquired by Yahoo), Foster City, California** May 2000 – August 2000

**Summer Intern**

- Developed software in VJ++ to import external profile data from portal's database to Inktomi's database.
- Wrote filters in VC++ to pull html pages and images from merchants' websites to Inktomi's database.

## EDUCATION

**Master of Business Administration (MBA)** May 2009

Indiana University, Kelley School of Business GPA: 3.74/4.0

- Major in Strategic Management and Entrepreneurship

**Master of Science (MS)** May 2001

University of Illinois at Urbana-Champaign GPA: 3.87/4.0

- Major in Computer Science

**Bachelor of Technology (B Tech)** July 1999

National Institute Of Technology, Kurukshetra, India GPA: 73.0/100.0

- Major in Computer Engineering

## PUBLICATIONS

**A secure multicast protocol with copyright protection** 2002

ACM SIGCOMM Computer Communication Review

Volume 32 , Issue 2 (April 2002)

ISSN:0146-4833

## TECHNICAL SKILLS

Programming Languages and Scripts: C, C++, C#, Java, Neuron C, Perl, VBScript, InstallScript  
 Platforms: Windows, Mac OS X, VxWorks, Linux, UNIX, ARM7  
 Other Technologies: XML, HTML, ASP .NET, SOAP, SQL, InstallShield, Windows Installer  
 Tools: Microsoft Project, Word, Excel, PowerPoint, Visio, FrontPage, Adobe Photoshop

## AWARDS AND HONORS

**National Talent Search Examination (NTSE) Award and Scholarship** 1993

- Recipient of scholarship awarded by the Government of India to top 1% of students (top 750 of over 100,000 applicants) on the basis of a nationwide examination and interview.

**Excellent Teaching Assistant Award, University of Illinois at Urbana-Champaign** December, 2000

- Given to an outstanding teaching assistant, based both on ranking by students and recognition by faculty.

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