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# OBJECTIVE

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|  | Pursuing senior architect position on directory services software development and engineering missions |

## EDUCATION

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| **9/89 – 3/91** | Master of Science in Computer Science College of Computer Science, Northeastern University, Boston, Massachusetts. |
| **9/83 – 6/87** | Bachelor of Science in Urban Planning College of Engineering, National Cheng-Kung University, Tainan, Taiwan. |

### EXPERIENCE

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| **3/98 – now** | Principal Software Engineer **Iris Associates, Inc, a wholly own subsidiary of Lotus Development Corporation, an IBM company, Westford, Massachusetts.** |

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|  | **Web Authentication/Authorization for LDAP users/groups, Lotus Domino/Notes R5.0x - R 6.0**   * Implemented simple (username / password) authentication via encrypted / normal channels for external LDAP users. * Implemented client certificate authentication via encrypted / normal channels for external LDAP users. * Built design of SSL handshaking options in between HTTP server and LDAP servers via Domino LDAP Gateway. * Implemented group membership authorization for external LDAP users. * Built design of group cache flush mechanism. * Implemented server certificate authentication to establish secure connections in between servers. * Implemented Web authentication/authorization verbose trace vehicle. * Built design of crossed domain trust model with Directory Assistance database. |
|  | **LDAP Schema, Lotus Domino/Notes R5.0x - R 6.0**   * Built and designed object-oriented Domino LDAP Schema. * Implemented schema builder, loader, parser, publishing methods with OC, AT, DCR, Syntax classes and exposed C LSchema APIs to be schema subset of Domino/Notes C API. * Designed the Domino LDAP Schema database for Schema Publishing with proper ACL. * Designed Schema Conversion table in between Domino and LDAP. * Synchronized Domino LDAP Schema with the Domino Directory design elements. * Implemented the subschema subentry for Domino LDAP server. * Built design of Schema Extension with auxiliary object class implemented by Domino subforms. * Implemented console commands to reload and export Domino schema for Domino server. * Implemented Schema Checking Enforcement feature for all LDAP add/modify/modRDN requests. * Built design of single-point administration for schema loading, browsing, extension, replication and synchronization. * Fully supported Internet RFC defined LDAP object classes, attribute types, and syntaxes. * Built design of schema objects with binary search tree structures for performance improvement. * Built design of domain-wide schema in between admin and subordinate servers by leveraging replication and document locking mechanism. |
|  | **Established Server Stability & Reliability, Lotus Domino/Notes R5.0x - R 6.0**   * Remodeled LDAP memory architecture and fixed several memory leaks for Domino LDAP server. * Implemented object class inheritance for Domino LDAP server. * Supported X.500 naming contexts with DC naming contexts plus container style naming for Domino LDAP server. * Built design of LDAP search solution in general. * Handled DN conversion in between Notes style and LDAP. * Translated LDAP DN in between UTF-8/ ISO88591 and LMBCS w/ Notes canonical/abbreviate formats. * Implemented LDAP search filters to work with Netscape Directory server and MS Exchange server. |
|  | **Entrust/PKI & DMS Support, Lotus Domino/Notes R5.0x - R6.0**   * Extended Domino naming capability to support X.500 native naming for Lotus DMS (Defense Messaging System). * Implemented and supported Entrust security PKI infrastructure to work with Domino LDAP server. |

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| **11/94 - 2/98** | ***Principal Software Engineer***, (hired as Senior in '94 and got promoted to be Principal in '97)  **Lotus Development Corporation, an IBM company, Cambridge Massachusetts.** |

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| **2/97 – 2/98** | **Lotus Domino/Notes cc:Mail Messaging Transfer Agent**   * Developed synchronization algorithms of directory services for the Domino server add-in component to support the Superior - Subordinate, the Division - Mesh, and the Enterprise - Mesh ADE (Automatic Directory Exchange) network topologies between the cc:Mail and the Notes/Domino messaging systems. * Developed the Domino agent based Configuration Assistant of Notes database with LSX (Lotus Script Extension) for the Messaging Transfer Agent to ease the complexity of configuration on the Notes/Domino Server. * Developed synchronization algorithms to support the propagation of the cc:Mail Bulletin Board into Notes as Mail-in database. |
| **9/95 - 1/97** | **Lotus Domino/Notes Fax Server**   * Developed the Lotus Notes-Mail based Fax Server and integrated with the Optus FACSys subsystem to provide the Domino a fax server solution on Windows NT platform. * Developed Lotus Domino.fax Internet application to make Lotus Domino Fax Server Web aware. * Designed Notes-based forms and views to interface various fax device settings. * Developed a background process launched by the Notes front-end action button to install/remove, start/stop NT services, load/unload fax device drivers, save fax board settings into the NT registry database, and report any critical event messages. * Developed interfaces between the Lotus Notes and the cc:Mail DB6/DB8 Post Offices to allow cc:Mail users to have sending and receiving inbound and outbound faxes through the Domino Fax Server. * Developed and implemented an encryption algorithm to encode the password of the administrator of the cc:Mail Post Office for the automatic rebooting purpose for the Fax Server cc:Mail edition. |
| **5/95 – 9/95** | **LN:DI OCR (Lotus Notes : Document Imaging, Workgroup Optical Character Recognition)**   * Developed the Lotus Workgroup OCR engine and deployed the Xerox TextBridge Technology within the Lotus Notes. * Developed the Common Engine Template to support generic "engine-type" products and implemented the design in the OCR engine which resulted in an extremely robust OCR product and provided a solid foundation for future development effort. |
| **11/94 - 5/95** | **LN:DI MSS (Lotus Notes : Document Imaging Mass Storage Server System)**   * Developed TCP/IP, IPX/SPX capabilities to communicate the LN:DI MSS server and the Image Viewer client components. * Developed simultaneous multi-protocol supports from GUI level to DLL implementation cross Win16, Win32, and OS/2 platforms. * Developed IPX/SPX capability under the Winsock 1.1 for the 32-bit LN:DI Image Viewer. |

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| **4/94 - 10/94** | Software Engineer **Desktop Data, Inc., Waltham, Massachusetts.**   * Developed synchronous data communication interfaces with TCP Socket-based connections to receive and broadcast news on the OS/2 and Windows NT platforms. * Developed asynchronous data communication interfaces with FM antennas, satellite receivers, and leased phone wires for the NewsEdge real-time news systems. * Developed automation REXX procedures to schedule receiving and broadcasting news on the production servers. |

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| **9/91 – 3/94** | Software Engineer **Intec Control Corporation, Walpole Massachusetts.**   * Developed asynchronous data communication interfaces via RS-232, RS-422, RS-485, or dedicated adapters to communicate with PLCs (Programmable Logic Controllers) and SLCs (Single Loop Controllers) for real-time process control and data acquisition systems on OS/2, and DOS/Windows. * Internationalized products with the DBCS (Double Byte Character Set) support on OS/2. * Handled hardware PLCs and SLCs ladder-logic program configuration, wire installation, and trouble shootings. * Wrote the user manuals of the I/O interfaces. * Instructed the training classes for third party vendors’ engineers to develop I/O interfaces. * Developed and prepared the I/O interface PDK (Programming Development Kit) for training. |

### EXPERTISE

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|  | ***Operating System*:** MS Windows 2000/NT/98/95/3.x, IBM OS/2, UNIX, Linux, Mac OS, and DOS.  ***Network System*:** Microsoft Windows Network, Novell NetWare Network, IBM TCP/IP, IBM LAN Server, Novell LAN WorkPlace, Ftp PC/TCP Network, Remote Access Service, Notes/Domino GroupWare Network.  ***Network Protocol*:** TCP/IP, IPX/SPX, NetBIOS, NetBEUI, Name Pipes.  ***Internet Protocol:*** LDAP, HTTP, SSL, IMAP, POP3, SMTP, NNTP.  ***Programming Language*:** C/C++, JAVA, HTML, SQL, PASCAL, FORTRAN, LISP, Scheme, BASIC, Assembly.  ***Scripting Language*:** VBScript, JavaScript, LotusScript, LSX(Lotus Script eXtension), REXX.  ***Developing Tool*:** MS Developer Studio w/Visual C++ & Visual J++, Sun Java WorkShop, IBM C Set++, PVCS, ClearCase, InstallSHIELD, Lotus Common Install Tool.  ***Class Library*:** MFC of MS Visual C++, UI Class of IBM C Set ++.  ***Software API*:** Win32 SDK, DDK, Java JDK, Win Socket API, IBM TCP/IP API, Ftp PC/TCP API, Novell LAN WorkPlace API, Lotus Notes C/C++ API, Lotus VIM API, Xerox TextBridge API, Optus FACSys FAX API, Pixel Translation PixTools Imaging API.  ***Groupware:*** Lotus Notes/Domino, MS Exchange server / Active Directory, Netscape Directory / Enterprise servers, Novell GroupWise. |