

Arul Selvan

Director, Software Development

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Professional Profile: <http://www.linkedin.com/in/aselvan>

Hands-on information technology leader with **20** years of experience and a proven track record of architecting and delivering reliable and scalable systems in a variety of areas, such as internet/e-commerce, network management/security, financial systems, messaging services, EAI, etc.

Five plus years of management experience on JavaEE software development combined with open-source technologies. Team management includes co-located direct reports as well as remote, off shore resource management. Thorough knowledge of the complete software development process and able to take a project from initial startup and analysis through to completion of production deployment and support. Experience in architecting and design/development of applications in traditional software delivery model as well as SaaS model. Experience in architecting messaging framework using commercial and open-source MOM products specifically for EAI and legacy application integration. Software development under LINUX including user/kernel module application development, and custom kernel modifications.

Technologies

Language: JAVA, variety of open-source technologies, C/C++, Unix shell scripts, perl

Environment: Operating System (Linux, Solaris, AIX, Windows), Communication (MQ, TIBCO, CORBA, TCP/IP)

Design/Process: OOAD, Design Patterns, Agile methodology, Scrum framework.

Networking: TCP/IP Network Analysis and Troubleshooting, Advanced Troubleshooting with the Sniffer Network Analyzer, Linux system administration (DNS, DHCP, IP MASQ/Firewall, NAT, postfix).

Professional Experience

[RealPage](#), Carrollton, TX

Director, Software Development– Jan 2010 to Present

Director of Software Development at YieldStar (yieldstar.com) a product division of Realpage, Inc. My primary responsibility is managing three different technology groups; software development, production software maintenance, and research. Other responsibilities include providing technical direction on platform and technology selection, development process, plan and implement new and significantly improved systems and services, working with internal and external technology groups to design integration components, addressing customer issues/escalations, working with IT infrastructure team on software/hardware support, maintenance and deployment activities, working with HR on talent acquisition ... etc.

[RealPage](#), Carrollton, TX

Manager, Software Development – Jan 2008 to Jan 2010

Development Manager of YieldStar product suite ([yieldstar.com](#)) --- a sophisticated revenue management software for the multifamily industry built on JAVA platform harnessing the power of open source technologies (Linux, PostgreSQL, Tomcat, Jboss, GWT, Spring, Hibernate, ActiveMQ ... and many more). This software is a hosted solution available to our customers via 'software as a service' (SaaS) model lowering TCO. My responsibilities include managing the software development activities, technical leadership and mentoring, process improvement, working with product management on new features and enhancements, working with IT infrastructure team on software/hardware support and deployment activities, working with HR on talent acquisition ... etc.

[Experian](#), Allen, TX

Sr. Manager, Software Development -- Dec 2004 to Jan 2008

Manage several financial (portfolio management, credit simulation) application software developed using JAVA EE technologies. Architect/Design a generic messaging framework for financial applications to run under any MOM (like MQ, TIBCO, Webmethods...etc), on any platform with little or no change. Architect/Design various WebService interfaces and implementations. Responsible for working with product and project management team to ensure that the projects are completed and delivered in a timely manner, working with the business owners on planning and preparing for new projects.

[McAfee](#), Plano, TX

Lead Software Engineer -- Mar, 2003 to Dec 2004

Lead Software Engineer for a network [security forensics software](#) (developed under LINUX with custom kernel modification and kernel/user mode applications to stream network data to storage at line rate). The software console component allows user to mine the store and reconstruct/replay various protocols. Developed a prototype on LINUX to address scalability issues of existing win32 network management software. Developed various sniffer (network monitoring/management) application components. Experience in Ethernet and TCP/IP network analysis and troubleshooting with sniffer network analyzer. [Language: C++ OS: Windows NT/2000/XP, LINUX].

[i2 Technologies](#) , Irving, TX

Senior Software Engineer -- Aug, 1998 to Dec, 2002

Designed and developed a process [monitoring/management system](#) based on [JMX](#) (Java Management Extensions) architecture using Sun Microsystems reference implementation. [Language/Framework: J2EE (JMX, JavaMail, JAXP), Webmethods OS: UNIX(Solaris) Other: ANT, JUNIT]

Principal developer of [Local Fulfillment](#) order promising system. Took partially completed, untested prototype code and turned it into working product code of exceptional quality ahead of all projected dates for completion. [Language: J2EE(servlet,JDBC,EJB) OS: UNIX(Solaris),Windows NT]

Member of the [Collaborative Fulfillment](#) (CF) Product Development Team. CF is an extensible framework for collaborative brokering of requests to participating suppliers. Designed and developed several CF subsystems like Scheduler for scheduling events, transport API's for HTTP and HTTPS protocol etc. [Language/Framework: J2EE(EJB,servlet,JDBC) CORBA,Tibco, Weblogic OS: UNIX(Solaris)]

Designed and developed [Log Manager Service](#). This is a background daemon process which monitors expired requests on the database and sends a cancel to external systems and removes the expired requests from the database. [Language: Java, J2EE(JDBC),CORBA OS: UNIX(Solaris)]

Designed and developed a JAVA based [Message System](#) with publish/subscribe mechanism. The system is very **unique** as it can have subscriber clients from a heterogeneous collection of systems (i.e. the system is independent of platform, transport and language). For example, a C++ client can register to receive messages on a subject via IIOP as transport while a JAVA client can post a message to that subject using RMI as transport. [Language: C++, Java, RMI, CORBA OS: UNIX(Solaris), Windows NT

Consistently received quarterly bonuses for achieving performance objectives above and beyond expectations. Received release bonuses in the form of stock options on every release. As a technical member, served frequently on search and screen committee and technical interview process.

[Raytheon Systems Company, Garland, TX](#)

Software Engineer -- Aug, 1996 to Aug 1998

Designed and developed several applications in a distributed computing environment. These applications ingest auxiliary data into satellite image receiving station software system (CRSS - Commercial Remote Sensing System for [Space Imaging](#)) and were developed on Silicon Graphics platform using variety of COTS tools such as Rogue Wave's View++ and Tool++, UIM/X, Orbix (by Iona - a CORBA tools vendor), and STL tools from Object Space Inc. [Language/Framework: C++, CORBA, Rogue Wave Tools OS: UNIX(Irix)]

Worked on developing software under MVC framework (Model View Controller - as implemented in Rogue Wave's toolkit) and applications under persistence frame work (in-house developed frame work layered on top of Rogue Wave's DBTools++). [Language: C++, CORBA OS: UNIX(Irix)]

Participated in a two weeks training class on Object-Oriented A&D Methodologies using Fusion Method. Participated in a week long course on Design Patterns. Served as a mentor/technical resource for less experienced engineers in understanding and/or problem solving.

Provided technical leadership to the CRSS system and led an effort to correct architectural errors in the system. Corrected several serious problems (such as, excessive use of CPU by idle processes, occasional communication dead-lock between CORBA server applications, random application crash, etc.), that were the cause of a severe, negative impact on system performance. Received a [spotlight recognition award](#) for this effort. Nominated for Raytheon E-Systems' 1997 Annual [Technological Achievement Award](#).

Completed a performance analysis of JAVA vs. C++ in the following areas, I/O, memory, JNI call, system call, etc. to evaluate JAVA as a language of choice for SIVAM - a multi million dollar environmental surveillance project for the Brazilian government. [Language: Java, C++ OS: UNIX(HP-UX)]

[GE Medical Systems, Milwaukee, WI](#)

Software Engineer -- July, 1995 to Aug 1996.

Worked on many subsystems of the CT scanner software which includes scan prescription, scan control/monitoring GUI interface, interactive graphical prescription of CT scan slices and real-time display of scanned CT images. [Language: C++ OS: UNIX(Irix)]

Led an effort to integrate and restructure the Dynaplan scan subsystem (scan control/monitoring system) for the new HiSpeed CT/i CT scanner. This effort, taking partially completed and untested code and turning it into working product code was accomplished **ahead** of all milestones and with exceptional **quality**. [Language: C++ OS: UNIX(Irix)]

Developed SmartPrep prototype software for RSNA 95 (Radiological Society of North America) which had a most successful product introduction. Worked with the other software developers in the

Host/Control systems to improve their knowledge of the X window system. Won **several awards** ([1](#), [2](#), [3](#), [4](#).) on excellent performance

Project lead and principal developer of [SmartPrep](#). This software feature allows the operator to visually monitor the contrast increase in the CT images of different parts of the patient's anatomy in real time and to pinpoint the critical time of maximum contrast between blood vessels and tissues to proceed with the actual scan prescriptions. [Language: C++ OS: UNIX(Irix)]

[Leica Geosystems \(formerly Erdas Inc.\)](#), Atlanta, GA
Software Engineer -- July 1990 to June 1995.

One of the two member development team of the [Erdas Macro Language](#) (EML -- an Xwindow/Motif based scripting language compiler/interpreter and API for creating Graphical User Interface for stand alone application programs) for the Imagine Software (Image Processing and GIS software from ERDAS, Inc.). [Language: C, X/Motif OS: UNIX(Solaris)]

Developed [client-server interface](#) for the Imagine Software. Developed an event-driven device driver and API's for variety of Digitizing Tablet hardware under Xwindow/Motif environment. [Language: C, X/Motif OS: UNIX(Solaris)]

Developed context sensitive on-line help system for the Imagine software using the Frame Viewer (help server from Frame Maker Tech.), and HyperHelp (help server from Bristol Tech). [Language: C, X/Motif OS: UNIX(Solaris)]

Designed and developed a user preference Manager API library and an Xwindow/Motif based preferences Editor. Developed batch management system (on top of UNIX/cron) for the Imagine Software.

Designed and developed many applications for the Imagine Software in the following areas, raster image file management, classification accuracy assessment, thresholding, and histogram plotting tools to aid the visual evaluation of signature histograms.

Designed and developed graphics display device driver for various VGA graphics boards for the PC based ERDAS Image Processing software which **opened up** a new low cost product line (VGA Erdas) for the company. [Language: C,8088 Assembler OS: DOS]

Served as **instructor** for C Toolkit training courses conducted by ERDAS training facility, and provided technical support for developers. As a technical member, served frequently on search and screen committees.

Education:

[Environmental Remote Sensing Center](#), [University of Wisconsin](#), Madison, WI
(Ph.D. – 1990)

Completed all the course requirements and qualifier exam for the Ph.D program except thesis. Thesis: Development of fast and improved image classification algorithms.

[Anna University](#), Madras, India
M.Tech Remote Sensing (1986)

Thesis: Application of Remote Sensing to Geological and Geomorphic mapping.

[University of Madras](#), Madras, India
M.Sc Marine Geology (1984), B.Sc Geology (1982)

Presentations:

Scarpace, F.L, Selvan, A., Weiler, P. and Seidl, L. , 1992, *Maximum Likelihood Classification Using a Table Look-up Technique*, Technical Papers, 1992 ACSM-ASPRS Annual Convention, ACSM-ASPRS, Washington, DC.

Selvan, A and F.L Scarpace, 1990, *Speeding up Maximum Likelihood Classification Process using a Table Look-Up Technique in a Microcomputer Environment*, Technical Papers, 1990 ACSM-ASPRS Annual Convention, Volume 4 Image Processing/Remote Sensing, ACSM-ASPRS, Denver, CO.

M.Tech thesis at the Symposium on Remote Sensing in Geology held at Ahmedabad, India on September 3, 1986.

Personal:

Interact well with people of diverse backgrounds from all areas of the organization, and thrive in a team environment. **U.S. Citizen**. References available upon [request](#) or you can checkout online reference at my profile in [LinkedIn.com](#). Please visit my personal page ([Personal Page](#) or [Home Page](#)) if you are interested to know something besides my employment/experience.

Online Resume: <http://selvans.net/resume>

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