

Richard L. Pettit, Jr.

505 South Melcher St., Johnstown, NY 12095
(518) 762-1030 [Office], (518) 705-1521 [Cell]
Email: richp@alltechcomputingservices.com

Professional Objectives

Work in all areas of technology and provide tangible value through high quality services and products.

Education

B.S. Computer Science - 1984
[SUNY Institute of Technology](#), Utica, NY

A.O.S. Data Processing, A.O.S. Accounting - 1982
Albany Business College, Albany, NY

Publications

Sun Performance and Tuning - Java and the Internet
Second Edition
Adrian Cockcroft, Richard Pettit
Prentice Hall / Sun Microsystems Press
[ISBN 0-13-095249-4](#)

Generic Telemetry Processing - Theory vs. Application
From *Proceedings of the International Telemetry Conference, 1988*
Formalizing Performance Metrics in Linux
From *Proceedings of the 25th International Conference for the Resource Management & Performance Evaluation of Enterprise Computing Systems, 1999*

Employment History

Founder, Lead Consultant

[AllTech Computing Services, LLC](#) - Johnstown, NY - March 2009 - Present

- Provide technology consulting services, computer repair, network design and implementation and other services for the upstate New York region.

Founder, President

[Captive Metrics Software Corporation](#) - Johnstown, NY - February 2006 - March 2009

- Built a software company from scratch founded on the goal of developing a platform independent performance architecture that is both network aware and secure.
- Developed that software architecture, named Captivity@.
- Released the first product based on Captivity, The XE Toolkit™, now in its third release.

Chief Performance Architect

[Quest Software, Inc.](#) - Pleasanton, CA - June 1997-July 2004

- Define performance metrics to be collected from UNIX operating systems and develop graphs, reports and rules around these metrics for use in Quest's [Foglight](#) product.
- Work with the sales force as a technical resource.
- Provide technical support for the product after the sale.
- Work with executive management to help define product strategy.

Senior Consultant, Area Systems Engineer, Staff Engineer

[Sun Microsystems, Inc.](#) - Los Angeles, CA - January 1992-May 1997

- As a staff engineer for technical product marketing, work with worldwide sales force to provide technical education and assistance on products.
- As an area/regional sales engineer, work side-by-side with sales staff in large opportunities.
- As a senior technical consultant, provide customers with consulting services for software development, network design, data center design, security and performance management.

Principle Member of the Technical Staff

Locus Computing Corporation - Inglewood, CA - March 1990 - September 1991

- Provide third level technical support for the AIX version 1 operating system. Areas of expertise include kernel, compilers, networking and X Window System.
- Member of the *critical situation / fly and fix team* responsible for being on site for high profile customers to fix problems as they occur.

Senior Software Consultant

[Telos Corp.](#), Consulting Services Division - Santa Monica, CA - July 1987 - December 1989

For [Jet Propulsion Laboratories](#) - Pasadena, CA - July 1987 - June 1989

- Develop software for the **Space Flight Operations Center's Telemetry Input Subsystem**. Work included developing the frame extraction, channel decommutation and network communications for the Magellan and Galileo instances of the SFOC TIS.

For Office Automation Systems, Inc. - San Diego, CA - June 1989 - December 1989

- Port existing MC 68000 based real time system, written in C, to the Intel 80960 chip. Additional work included developing the bootstrap, task switching, memory management, floppy disk driver, serial port driver, file system, and a client/server symbolic debugger for analyzing the running real time system from a remote computer.

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Employment History Continued

Software Engineer

[Eaton Corp.](#), IMSD - Westlake Village, CA - July 1984 - July 1987

- Work with a team of software engineers to develop an office automation system for an Air Force bid.
- As a member of Research and Development, work on emerging technologies to provide engineering with insight on potential new software and hardware products.

Outstanding Accomplishments

For Eaton IMSD

- Wrote the first ever on-line interface to the Collegiate Edition of the American Heritage Dictionary for Houghton-Mifflin. This was part of an on-line dictionary and thesaurus for the Air Force office automation system.
- Developed a prototype intelligence workstation from beta 80386 chips from Intel. This workstation featured an early release of Interactive Systems 386/ix Unix System 5.3 for Intel.
- Wrote a natural language parser for use by intelligence analysts to scan information networks for profiled data.

For Jet Propulsion Laboratories

- Developed a prototype programming language for extracting arbitrary length bit fields out of telemetry data.
- Wrote an interpreter for the decommutation language used by the SFOC TIS which generated byte code files that could be loaded and unloaded by the decommutation process without interruption.
- Created an abstract language for defining a distributed system and the data flow therein as a connected directional graph, the nodes in the graph representing separate processes in the distributed system. The interpreter would generate the server process code with the RPC entry points delineated.

For Sun Microsystems

- As a systems engineer for the Los Angeles basin, worked with sales executives to increase sales revenue to the entertainment industry 10 fold.
- Acted as lead engineer for the implementation of a cyber-café with the House of Blues at their Atlanta, GA club during the 1996 Summer Olympics.
- Repeated my role as lead engineer working with the House of Blues to create a cyber-café at their club in New Orleans, LA during the 1997 Super Bowl.

For Quest Software

- Developed an end-to-end transaction analyzer as a Foglight cartridge. This was implemented using promiscuous network probes to monitor network traffic and aggregate the resulting data in a central location.

For Captive Metrics

- Built the foundation of the Captivity software architecture and the first product based on Captivity, The XE Toolkit. The entire product line is written in Java and C++ and delivers performance metrics across the network securely using Java's Remote Method Invocation (RMI) technology. Graphical tools in XE are written using Swing.
- Developed the Captive Metrics web site and its sister site, xetoolkit.com using iWeb on the Apple iMac. The Captive Metrics site also features an online store which required establishing a merchant account and a gateway account for credit card processing.

Just because I wanted to

- Wrote an interpreter for the pure functional form *FP*, a language created by John Backus of FORTRAN fame. The syntax of the language was based on the FP interpreter written in Franz Lisp on BSD 4.3 systems.
- Created a menu language for developing interactive menu programs for use on dumb terminals. I used this system to develop a software system for maintaining and updating the text on the LED signs over the ticket counters at the Tom Bradley International Terminal at the Los Angeles International Airport.
- Wrote the SE Toolkit, an interpreted programming language based on C, C++ and Java that provided the ability to define performance data sources in the SunOS 5.x kernel as primitive types. Many of the scripts written in the toolkit language, called SymbEL, are quite large and complex. Several companies have developed entire performance monitoring systems from the SE Toolkit that they consider proprietary intellectual property. SE is written in the C language.

Technology Experience	Operating Systems		Programming Languages		
	Unix	Windows	Expert	Intermediate	Novice
	Solaris, AIX, HP-UX, Linux, FreeBSD, MacOS X	7, Vista, XP, 2000 Server, 2003 Server	C, C++, Java, sh, ksh, awk, SymbEL	Ruby, Groovy, C#, Ada	Perl, TCL