

# FLEXICON, LLC

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## Denis Michael Putnam

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CORP-TO-CORP CONTRACTS ONLY – NO W2

### Summary:

- *Mr. Putnam has 30+ years of experience encompassing the various stages of software development.*
- *Mr. Putnam has excellent experience in:*
- *Angular, Spring Boot, Spring, Hibernate, MVC, JSON, REST, Java, Perl, MySQL, Oracle, Sybase, Spring Source Tool suite (STS) (Eclipse), Maven, Swing.*
- *Mr. Putnam has demonstrated over the years that he is able to grasp complex problems quickly.*
- *Mr. Putnam has demonstrated that he is a fast learner and is able to adapt to new technologies and business paradigms.*
- *Mr. Putnam has demonstrated the he can work well with others within development groups and also independently.*
- <https://github.com/denismp?tab=repositories>

### Functional Summary:

		Number of years
Operating Systems	UNIX (Sun Solarus, HP, SGI, AIX, LINUX)	25+
	Windows	15+
	MAC OSX	5+
Languages	Java	15+
	Angular 5	1+
	C/C++	20
	OO PERL	19+
	UNIX Shell Scripting (ksh, sed, awk)	15+
	SQL	15+
	Jython	1
Databases	XML	2
	Sybase	13
	Oracle	10+
	MS SQL	1
	MYSQL	4+
Miscellaneous	Spring/Hibernate	5+
	Spring Boot	1+
	WebSphere	5+
	Tomcat	10+
	WebLogic	4+
	AutoSys (Job Scheduler)	5+
	Spring/Hibernate	4
	AWS	1

## **Professional Experience:**

**Salient CRGT, Rockville, MD**  
Contractor

**4/2107 - present**

### **Skills Used:**

- Angular, Typescript, Visual Studio Code, Spring Boot, REST, MVC, Java, Spring, Hibernate, JQuery, JavaScript, Primefaces, Weblogic, Tomcat, Maven, Oracle, Toad, STS IDE, SVN.

### **Experience:**

- Developed the PCOCAR micro services application for the FDA. This application uses angular 5 for the front end and Spring Boot for the backend. It is a REST based application that has separate projects for the front end and the backend (separation of functionality). The front is written in angular 5, using REST, redux to maintain application state, and Ng5Breadcrumb and Routes for navigation. The front end was developed using Visual Studio Code using Typescript. The backend was developed using the Spring Source Tool suite (STS) IDE in java 8, spring boot, hibernate, and tomcat. Both projects are deployed to Weblogic in the higher environments.
- Also working on the (Voluntary Compliance) Vqip application for the FDA. This application involves java 8, MVC, spring, Hibernate, Primefaces, JavaScript, JQuery, Oracle, and Weblogic.
- Some of the other tools used are Toad, SVN, and BeyondCompare.

**Ark NSS, Sterling, VA**  
Contractor

**4/2016 – 1/2017**

### **Skills Used:**

- Java, Spring, Hibernate, JavaScript, STS IDE, github, Perforce, BeyondCompare, My SQL, Tomcat, Ubuntu UNIX, VM Ware, STS, Maven, MAC OS, and AWS.

### **Experience:**

- Provided backend development for the Asset Core application. This application provides monitoring and reporting of industry standards security compliance for Operational Technology (OT) in various industries for ISA, NIST, etc. Industries for power, energy, health, and insurance are some of the expected uses for this application.
- Was responsible for the development of the spring and hibernate backend for both the Model View Controller (MVC) and REST functionality. The backend database is in MySQL with the application running on Ubuntu and the Tomcat application server.
- Researched and provided documentation and technical assistance for setting SSL for the application and Tomcat.
- Development was managed via Tiaga agile management software and maintained in the Perforce source code control system.
- Other technologies touched upon were ActiveMQ and Puppet.

**NGS, Baltimore, MD**  
Contractor

**2/2015 – 12/2015**

### **Skills Used:**

- Java, Spring, Hibernate, bootstrap JS, thymleaf, JavaScript, HTML5, STS IDE, github, BeyondCompare, Oracle sqldeveloper, Websphere, tomcat, javascript, PDFBox, Itext, Windows 2007 and 2008, Solaris UNIX, VM Ware, STS, Maven, and cygwin.

### **Experience:**

- Provided code enhancements for digital signature, bug fixes, and other processing enhancements to the EUA EFI application.
- This application provides the front end for registering and the collection of personal data for user's requesting access to the Centers for Medicare and Medicaid Services (CMS). Its primary function is to process the hhs745 documentation for users applying for access to the EUA Identity Management System.
- Initially the EFI application had been written by Deloitte and deployed to production, but the application had some serious bugs and the client (CMS) needed to have significant enhancements and bug fixes performed. There was little in the context of technical documentation and no one at NGS had ever worked with the application.
- Major tasks included learning how to build the application, getting it to run, and then applying the bug fixes and enhancements. The schedule for these changes was very aggressive.
- The most significant of these enhancements was to modify the application to require that the applicant sign the access request via the mouse and to store this "wet" signature into the Oracle database and then to produce the hhs745.pdf from the data entered by the applicant into the respective areas of the hhs745 form including the "wet" signature. The "wet" signature was captured via the browser using the HTML5 canvas element.
- Other tasks included DEV deployments using the WAS console and working online with the WAS Team to deploy to the VAL and PROD environments. Given that there exists no devops infrastructure within NGS, it was my responsibility to handle all code change management, releases, deployments, and verification of the EFI application in all the higher environments.
- This position also included doing production support.
- This position holds a public trust level 5 clearance.

**Astrum LLC, MD**  
**Contractor**

**3/2014 – 2/2015**

#### **Skills Used:**

- Oracle JDeveloper, WebLogic, Java, struts, JSPs, JavaScript, Sencha ExtJs4.2, Sencha Architect 3, SQL Developer, Hamachi, TeamViewer, Windows 2003 and 2007, MAC OSX, BeyondCompare, VM Fusionware, struts 1.

#### **Experience:**

- Work includes enhancements, bug fixes, and new functionality of the GSA's eSMART application. This application is used by the GSA to manage all the buildings, spaces, antenna, and parking for all the government rental and owned properties in the US. It uses Oracle GIS mapping data and the AutoDesk MapGuide software. The eSMART software is a web version of the AutoDesk application that displays and prints "maps" or drawings of the respective buildings, spaces, parking, and antenna for every building that the GSA manages.
- Specifically worked on the enhancement to display "scenarios" of existing spaces for perspective government clients. These scenarios consist of multiple variations of how space could be configured for government clients who are interested in using the property. For these enhancements, work included java, javascript, JSPs, struts, ExtJs, SQL, Sencha Architect, and BeyondCompare.
- Also worked on the enhancement for the production of Thematics for Aggregate, Agency, and AMP. Thematics is the way different "agencies" are indicated on the drawings for the reports and the maps that are drawn. The dialogs for these were developed using the ExtJs and Sencha Architect.
- Development is done on VM Fusionware, which hosts a Windows 2007 OS. Hamachi is used for the VPN access to the backend Oracle database. The application communicates to the MapGuide Server to retrieve the drawings for display, printing, and reporting purposes.
- This position holds a public trust clearance.

**Prometric, MD  
Contractor**

**6/2013 – 2/2014**

**Skills Used:**

- WebLogic, Java, j2ee, eclipse, ant, Crystal Reports, Windows7, Windows 2008, Analytical skills, Cygwin, Perl, Strawberry Perl, TFS using Visual Studio, Sybase, MS SQL, C, Make, DBVisualizer, BeyondCompare.

**Experience:**

- Upgraded the Registry Web and Report applications from Weblogic 8.1 to Weblogic 12c. Also upgraded from Crystal Reports 8.5 to version 14. All code is being deployed to the Windows 2008 R2 platform running on a VM host.
- Rewrote the java Crystal Reports API to use the Crystal Reports java class libraries. First attempt was to rewrite the API using C, but this failed given that the Crystal Reports 8.5 .dll library was just too old and support is not available from the vendor.
- Performed code enhancements and bug fixes to the Registry applications.
- Upgraded both applications from jdk1.4 to jdk7. Required modifications to the build.xml files.
- Set up each project to build in eclipse to allow for debugging and analysis of the code.
- Wrote Perl scripts to create DB packages for database modifications to both the Registry and DPR applications for both Sybase and MS SQL Server.

**Western Enterprise, Inc., MD  
Owner**

**3/2013 – present**

**Skills Used:**

- Sencha Architect 2 and 3, ExtJs 3 and 4, STS (eclipse) Spring ROO, Java, JSON, MAC, OSX, Postgress, Araxis Merge, Perl, Git-Hub, perl, HSQL, Maven, STS, AWS.

**Experience:**

- Have been working on an in-house project for the The Learning Community for about a year. It is based on HTML5 web2.0 technology. Specifically it is using Sencha's Architect IDE, the Sencha's ExtJs communicating with the backend via JSON. The backend is being developed using Spring ROO, which involves Java, Spring, Hibernate, dependency injection, and aspect oriented programming paradigms. The java code is using the Active record design pattern. The Springworks STS eclipse IDE has the ROO plugin and allows the programmer to develop the backend entities using the ROO scripting language. It creates a web based CRUD application that allows the developer to deal with the database right out of the box.
- The code is owned in-house and will be sold on a subscription basis and may be marketed to other educators or school systems. <http://pacific-oasis-5986.herokuapp.com/myschoolapp> Login as demo/pass1234.
- This code is being developed using the Sencha Architect IDE with the ExtJs javascript libraries for the front end. The backend is being developed using the SpringWorks IDS (STS) using the Spring ROO plugin.
- Spring ROO uses the entire gambit of the j2ee stack using Hibernate, Spring, Dependency Injection, and Aspect Oriented Programming paradigms.
- The database being used for development is Postgress.
- At present the development is approximately 50 percent complete.
- This is a full-blown RIA/WEB2.0 application. There are no HTML forms or CGI parts to the application and it never leaves the current page. It is completely interactive and behaves as a real application.
- I have been focused on ExtJs for about the last year. This does not make me an expert, but it does make

me proficient in the technology. Sencha is the industry leader in this field. I recommend that one visit the <http://www.sencha.com> to see the types of applications that can be developed.

- One example: <http://docs.sencha.com/extjs/4.2.2/extjs-build/examples/build/KitchenSink/ext-theme-neptune/#basic-panels>
- This will give you an idea of what Sencha ExtJs can do.

**Freddie Mac, VA**  
**Contractor**

**2/2013 – 5/2013**

**Skills Used:**

- Analytical skills, Cygwin, Perl, UNIX, AutoSys, ClearCase, Remedy, Sybase, RapidSQL, Java.

**Experience:**

- Perform remediation of Legacy code to upgrade existing applications for the latest versions of Java, Sybase and deployed them to production.

**TIAA-CREF, NC**  
**Contractor**

**9/2012 – 2/2013**

**Skills Used:**

- Analytical skills, Service Now, Cygwin, Perl, UNIX.

**Experience:**

- Perform development and maintenance of Perl scripts that access the Service Now IT Service Management system for the Technology Strategy & Enterprise Architecture DataStage group. Wrote several Perl programs to perform assignment and reporting of breaches and time due for incidents and tasks using the Service Now Perl API.
- Perform development of Service Now reports from within Service Now.
- Make assignments of production changes and send out reports of who is doing what.
- Write weekly management reports of initiatives assigned to the group. This group consists of 8 people who report to me in conjunction with Tech Lead/Manager.
- Manage disaster recover (DR) testing and other activities.
- Worked with the Tech Lead/Manager to design processes for dealing with Change Requests, Service Requests, and Incidents in Service Now.
- Attend LCAB and MCAB meetings on a weekly basis for changes and issues affecting our group and our clients.

**Freddie Mac, VA**  
**Contractor**

**12/2011 – 9/2012**

**Skills Used:**

- Analytical skills, Java, Eclipse, Cygwin, Perl, UNIX, SQL, RapidSQL, DB2 SQL, Sybase SQL, struts 1.x.

**Experience:**

- Performing development maintenance support for the MI ACES system. This system is written java and performs the claims processing for the non-performing loans. This system uses DB2 as the database backend.
- Perform database backend data changes in DB2 and Sybase.

**Constellation Energy, MD**

**4/2011 – 11/2011**

**Contractor****Skills Used:**

- Analytical skills, Perl, UNIX, SQL, Oracle DB, Java, Oracle Customer Care and Billing (CCB), Oracle Utilities Business Intelligence (OUBI), sqldeveloper, UC4.

**Experience:**

- Worked on Oracle's CCB and OUBI backend database schema to perform data validations for both the CCB and OUBI data after extract and loads are performed.
- This work involved OO Perl, DBI, and the Perl Excel libraries, as well as the Perl MIME libraries. Code creates external reference tables based on the source ID's from the CCB change log table and performs MINUS queries to determine the difference in the data on both sides.
- Oracle's Eclipse IDE for working with the CCB framework and the java development used to perform the extracts from the CCB system.

**Fannie Mae, Reston, VA**  
**Contractor**

**8/2010 – 3/1/2011**

**Skills Used:**

- Analytical skills, Java, WebLogic, GWT, Swing, front end and backend development, EJB Session Beans, IBatis, XML, Eclipse, Oracle SQL, TOAD.

**Experience:**

- Worked on the RiskNet 17.x and 19.0 applications. RiskNet 17.x is a swing, webstart, JNLP application and RiskNet 19.0 is a Google GWT AJAX application.
- Both applications use J2EE EJB Session Beans, Java, and IBatis. Involved in development work from the front end to the back end.
- Applications are deployed to WebLogic Application server.
- Work was done by 5 to 6 developers.

**T. Rowe Price, Owings Mills, MD**  
**Contractor**

**4/2008 – 8/2010**

**Skills Used:**

- Analytical skills, Jython/Python, Java, J2EE, WebSphere Console, WebSphere JMX MBeans, XML, Xpath, Altova, OO Perl, Korn Shell, XOM, TWIG, wsadmin.sh, Interwoven Workflow Modeler.

**Experience:**

- Worked on the Application Management Platform (AMP) application to configure and deploy Enterprise Applications to WebSphere as well as other systems. Initial work was developed in the Interwoven product using the workflow modeler and calling korn shell and OO Perl scripts.
- Final work was completed using Jython/Python in combination with Java to retrieve data from the front end system and to call the WebSphere JMX MBeans. Threading was used to increase performance. JMX session management was used to manage the configuration and deployment of the Enterprise Applications to allow for "rollback" on failures.
- This position required extensive understanding of the low level WebSphere JMX MBeans and management java classes. This experience was acquired while learning the Jython/Python programming language as well as how to interact with the required Java classes employed by IBM's WebSphere product.
- This position required working with a project team both in a development and consulting role, and to be able to work with little or no supervision other than to coordinate with other team members. Strong verbal

and written communication skills were required as well as extensive knowledge of the WebSphere JMX architecture.

**Marriott, Gaithersburg, MD**  
**Contractor**

**2/2007 – 4/2008**

**Skills Used:**

- Analytical skills, OO Perl, Korn Shell, ftp, and sftp.

**Experience:**

- Developed a standardized korn shell script to perform ftp, and sftp file transfers. Pgp, DES, and BTRADE are used to encrypt and decrypt transfer files and configuration files. Converted existing customized korn shell scripts to the standardized korn shell script to allow Marriott to meet the Federal PCI requirements and administered the installation of the ssh and pgp public keys. The standardized script and its libraries are all documented in UNIX man pages online. In addition to the korn shell scripting, also wrote a version in Perl using several OO Perl modules. Also attended the Oracle Admin I class in Baltimore.

**EZTUK, Damascus, MD**  
**Owner**

**2/2007 – 6/2007**

**Skills Used:**

- Analytical skills, OO Perl, HTML, JavaScript, UNIX, Google Web Toolkit (GWT), MyEclipse, JBoss, and Instantiations GWT Designer.

**Experience:**

- Developing a freight broker tool for a freight brokering company started by myself.
- Development is in AJAX using MyEclipse, GWT and GWT Designer by Instantiations. This will be a commercial application when completed in next few months. GWT and GWT Designer is similar to JBuilder's IDE or the Jigloo Swing Designer in Eclipse. All development is done in java and then deployed as a JavaScript file along with the appropriate Java classes to execute as an AJAX web application.

**Fannie Mae, Herndon, VA**  
**Contractor**

**4/2006 – 2/3/2007**

**Skills Used:**

- Analytical skills, OO Perl, HTML, JavaScript, UNIX, Oracle, squirrel, sqldeveloper, Ab Initio, and database design.

**Experience:**

- Wrote several Perl scripts and Ab Initio graphs to maintain Ab Initio key renewal requests. Designed the Oracle database tables using DBDesigner 4, squirrel, and sqldeveloper.
- Wrote web applications using Perl CGI and CGI::Application modules for querying Ab Initio key renewal requests and for running Ab Initio "air" command via the web.
- Wrote several Perl scripts for automated reporting and data maintenance via autosys.
- All Perl was developed in OO Perl using Perl modules that return object handles that allows access to the module attributes using getter and setter methods similar to Java beans.
- Used Perl and the [Spreadsheet::WriteExcel](#) and the [Spreadsheet::ParseExcel](#) Perl modules to read, analyze, and write Excel spreadsheet data.

**Siege Enterprises, LLC, Westminster, MD**  
**Contractor**

**8/2005 – April 2006**

**Skills Used:**

- Analytical skills, Java Swing, Eclipse, Jigloo Swing Designer Eclipse plug-in, Dreamweaver, PHP, MYSQL, phpMyAdmin, JBoss, database design.

**Experience:**

- Wrote the web pages for [www.siege-band.com](http://www.siege-band.com) using php, mysql, phpMyAdmin, and Dreamweaver.
- Worked on the web pages for [www.siege-enterprises.com](http://www.siege-enterprises.com) using the same tools as well as Eclipse, Jigloo, Swing, and JDBC.

**Marriott**  
**6/2005 – 4/2006**  
**Contractor**

**Corp,**

**Frederick,**

**MD**

**Skills Used:**

- Analytical skills, OO Perl.

**Experience:**

- Wrote the Synch-Up Components Report for the MCOM group to report on the application versions for all the hosts in the group's sphere of influence. This report uses the Spreadsheet::WriteExcel and Spreadsheet::ParseExcel Perl modules. Input is from delimited ASCII files which are translated into an .xls file that is used as the database for the report. The report is a generated .xls file that linked to a web page.
- Wrote the Perl VERITAS backup report to indicate which hosts have been removed from the VERITAS policies in the last twenty-four hours.
- Wrote the Perl Open View Network report to provide ASCII data to the MARNICS Network Web Report.
- All Perl was developed in OO Perl using Perl modules that return object handles that allows access to the module attributes using getter and setter methods similar to Java beans.

**Wells Fargo, Columbia, MD**  
**Contractor**

**1/2005 – 6/2005**

**Skills Used:**

- Analytical skills, OO Perl, C++, OLE-DB, TRANSACT SQL, PL/SQL, MS-SQL, Oracle.

**Experience:**

- Performed software development for the Short Term Investor Report application. This application was written initially in PL/SQL using PL/SQL Developer from Allround Automations. After performance analysis indicated that the backend server would be adversely affected running the stored procedure packages, the PL/SQL code was rewritten using Perl and ODBC, using MS-SQL. Additional development included C++ for converting existing applications from Microsoft's DBLIB to OLE DB. Wrote the DbUtils abstract class library and the MsDbUtils derived class library to accomplish this task. The code modification required the use of embedded MS-SQL code. Also modified existing Perl applications to replace any MKS UNIX like calls with the straight Perl calls to standard packages. All development work was accomplished on the Window XP platform.
- All Perl was developed in OO Perl using Perl modules that return object handles that allows access to the module attributes using getter and setter methods similar to Java beans.



**Fannie Mae, Reston, VA**  
**Contractor**

**11/29/2004 – 12/27/2004**

**Skills Used:**

- Analytical skills, Java, JSP, HTML, JavaScript, Perl, Microsoft Excel.

**Experience:**

- Performed analysis of existing Java and JSP code for user screen and role privileges. The results of this analysis were entered into Microsoft Excel spreadsheets to document the testing requirements of the Core Fannie Mae business client front end. This application was developed as JSP's and the presentation layer had many components that are either displayed or not displayed based on the application role and user role combinations. This position required the skill necessary to read and understand JSP, JavaScript, HTML, and Java code.
- Used Perl and the [Spreadsheet::WriteExcel](#) and the [Spreadsheet::ParseExcel](#) Perl modules to read, analyze, and write Excel spreadsheet data.

**America Online, Dulles, VA**  
**Contractor/Principle DBA/Principle Developer**

**3/1999 – 11/26/2004**

**Skills Used:**

- *Java, Java Swing, J2EE Servlets, JBuilder, WebStart JNLP*, Perl, C, SWIG, HTML, CGI, Sybase, SQL, ksh, AutoSys, Jakarta-tomcat.

**Experience:**

- Using JBuilder 4, 5, 6, 8, 9, X developed, tested and deployed the InfraMgrServlet, and the backend code to support the InfraMgrServlet requests. Wrote InfraMgr applet and later the WebStart JNLP version. Installed the Jakarta-tomcat web server required for the InfraMgrServlet. Implemented the InfraMgrServlet. Additionally supported the infrastructure code as well as performed the Sybase database on-call.
- *Designed, implemented, and deployed the InfraMgr Applet and the Webstart jnlp InfraMgr application. This involved the use of Swing and the wysiwyg designer of Borland's JBuilder.*
- Implemented the new enhancements in the InfraMgrServlet and added the required functionality to the InfraMgr applet and Webstart application. I also modified the backend database schema to support a more normalized representation of the data as well as to enhance the database integrity. I added the new code in the InfraMgr to perform the interfaces files maintenance, generation, and pushing to the users hosts. Added export functionality to the InfraMgr and the ability to generate interfaces files directly to the user's desktop. Added the import capability to give users the ability to import bulk data into the infrastructure database
- Demonstrated the new features to the various user groups within AOL.
- Wrote and supported the InfraMgr system, the AOL versions of the Perl binaries, sqsh, and the push and migration utilities. The Perl binaries consist of modifications to the Michael Peppler's Sybase::CTLib to allow users to connect to the Sybase data servers using stored encrypted passwords. Developed the AolSyb.pm Perl module to wrap the modified Sybase::CTLib code. This code was also implemented in sqsh and in Java. The Java implementation was written as a Java package called AolConnect. There are many AOL employees who depend on the applications and utilities written to date. The NOC, the Sybase On-call folks, and a large percentage of the Sybase SA's, as well as the Redbrick, DB2, and Oracle Administrators use these tools as part of their everyday jobs. Most of the Sybase monitoring and maintenance used by Sybase SA's use the AOL implementations of the AolSyb.pm, AolConnect java library, sqsh, and the perl libraries to perform their batch processing used to keep the backbone of AOL's databases up and running in production.
- Developed the Configuration Management Perl applications to migrate code to the thousands of servers used by the Data Server Administrators.

- Because of these applications, the Sybase On-call and the number of problem events seen by the NOC were significantly reduced. Feedback from the users indicated that they were paged far less frequently because the monitoring applications were more reliable and accurate; therefore the NOC received far less false positive events.
- The work in the InfraMgr system is making it easier for users to input and extract data from the infrastructure database. Users can now produce spreadsheets on their desktops for reporting purposes. In addition to being able to produce and push interfaces files to their hosts, the users can now also generate their interfaces files to their own desktops. This gives the user more flexibility and options for hosts that are not hospitable to our method of pushing files. Users are able to import bulk data into the InfraMgr system from their desktops, thus making their experience of using the software more productive and powerful.
- Have written code for AOL both as a contractor and as an employee. Most of the code requirements, design, and implementation have been at the suggestion of this developer to managers who felt comfortable enough with this developer's expertise to give this developer a free hand in what has been developed. Have demonstrated an ability to learn and pick up skills very quickly. Also have the ability to write robust and reliable code quickly. Have received unsolicited commendations and comments from clients as a contractor, and from previous manager, as well as fellow employees, and customers here at AOL for the work that has been done on their behalf. Have demonstrated distinguished abilities in analysis of software problems in on-call duties and in the support of the infrastructure code. Have also been sought after for advice and recommendations as to how to solve programming and support issues. Fellow employees have also asked for this developers input as far as teaching people programming languages in Perl, C, Java, and SQL.

**Disclosure, Inc., Bethesda, MD**  
**Consultant**

**10/1998 – 03/1999**

**Skills Used:**

- C, Perl, PVCS, UNIX, Sybase, Sybase CTLlib, SQL, stored procedures, triggers.

**Experience:**

- Was responsible for upgrades and modifications to the Full Text Maintenance system used in conjunction with the Fulcrum text search engine. This system is responsible for storing, searching, and retrieving full text from Edgar documents received from the SEC. Tasks included modifying and writing new code in C and Perl as well as some shell scripts. This system was developed by several programmers in a rapid prototype environment. Was tasked with determining what source files built the system. Once it was determined what files built the components of the system, the files were put into PVCS. Was then tasked to write the PVCS build scripts to completely build the system on the development platform for both the Solaris and HP systems. Many of these components were previously built with object files that were out of revision with the current source files. The number of files involved is in the hundreds across several directories. Documentation is negligible. Also was tasked with the Y2K review and assessment of the current source files.

**T. Rowe Price, Baltimore, MD**  
**Consultant**

**03/1997 – 10/1998**

**Skills Used:**

- C, OO Perl, HTML, CGI, UNIX, Sybase, Sybase CTLlib, SQL, stored procedures, triggers, SWIG

**Experience:**

- Was involved in the support of software written for the conversion of the SAMS system to the Global Portfolio System (GPS) and the supporting feeds and reporting tools.
- T. Rowe Price Associates had recently completed a major conversion of its SAMS system to their Global Portfolio System (GPS). The SAMS system was the system-of-record for TRP portfolio data. It consisted

of several software systems mostly written in COBOL on an IBM mainframe. Wrote various applications including CGI Web applications and securities feeds for the GPS. Also wrote several feed and database data overlay programs. The code was written in Perl, C, and some shell scripts, using Sybase SQL and the Open Client Library for both the C and Perl programs.

- Also wrote a parser/generator to read the Belvedere GPS API source code files to generate the C code wrappers to extend the Perl interpreter. This was done in conjunction with the Simplified Wrapper and Interface Generator (SWIG) utility written by David M. Beazley from the University of Utah. The Belvedere GPS API extensions are made into a UNIX shared library that allows the Perl interpreter to bind the GPS API calls at run time. This now allows developers of the various feed programs to make native C GPS API calls from Perl. The parser/generator allows T. Rowe Price to regenerate the shared UNIX library any time Belvedere releases a new version of their API without the developers having to make any code changes to their Perl programs.
- All Perl was developed in OO Perl using Perl modules that return object handles that allows access to the module attributes using getter and setter methods similar to Java beans.

**Fannie Mae, Washington, DC**  
**Consultant**

**08/1992 – 03/1997**

**Skills Used:**

- C, UNIX, Perl, Tivoli (CORBA, IDL, development tools), IBM MQSeries, Autosys, Microsoft C++, Sybase, SQL, Sybase DBLib, Sybase Open Server, SQL, stored procedures, triggers, XVT, PVCS.

**Experience:**

- Was involved in the development and support of the Command Center monitoring applications using Tivoli, the Tivoli Enterprise Console (TEC) rules programming, and the IBM MQSeries event queues. Also created and supported the Command Center's database using Sybase. Was responsible for maintaining and modifying the TEC rules for the Command Center's TEC console. Created several Sybase database backend applications using the Sybase Client DB-Library. Developed the Diamond per-method daemon using the Tivoli Application Development Environment (ADE) and tidlc compiler for the Command Center's Information Infrastructure (II). Developed the Fuse application, which is a daemon process that is used to route critical, and warning events about Fannie-Mae MornetPlus applications using the IBM MQSeries to the TEC console to help the Command Center monitor the health of the MornetPlus applications. Also developed the Event Log API to hide this functionality from the caller so that it appears as just a logging library call to the application. The Fuse application also monitors it's own event queue and reports any problems to TEC.
- Worked on the Fannie-Mae Event Management System. This is a business wide system to track, escalate, manage and resolve problems with Fannie-Mae in-house, and vender provided software. Application interfaces were also provided to Fannie-Mae customers and customer software. The Event Management System made use of the client-server architecture and uses Sybase as the Database Manager. The software evaluates events as they occur and sends out notifications via e-mail and pagers.
- Wrote the SQL auxiliary open server to allow client applications and user access to the Event Management System. The software was written using the Sybase Open Server Library.
- Worked on the existing System Management Application Interface (SMAPI) to facilitate its use in current client applications and the Event Management System. This required rewriting the back-end of the library.
- The previous project was the Fannie-Mae Configuration Management System. Was responsible for designing and writing the baseline portions of this client application. Also wrote the report client application to provide reporting capabilities to the Configuration Management System. These client applications were designed using the XVT-Design tool and using Sybase as the back-end. Both the Configuration Management System and the client report application provided GUI front ends for the user.

- All software was written in C, XVT, and SQL running on UNIX and MS-Windows. The applications run on both platforms. The stored procedures and validation triggers are written in SQL and the Sybase Open Client DB-Library was used to make the queries to the data server.

## **Various Technical Positions**

**1985 - 08/1992**

### **Skill Used:**

- C, UNIX, Sybase, SQL, stored procedures, triggers, sockets, shared memory, semaphores, Perl, Informix, IPCs, FIFO, shared memory, message queues, sockets (TCP and UDP), X-windows, Informix C-ISAM, Motif, Communications Development, Fortran, Real Time, and EDI/X-12.

### **Experience:**

- Various development/technical positions as an employee and consultant. Details available upon request.

### **EDUCATION:**

- ActiveMQ In Action, by Manning publications, copyright 2016.
- Puppet Cookbook, Third Edition, Packt Publishing copyright 2015.
- Adobe FLEX, Action Script, Blazeds self learning 2008 – 2011.
- Oracle 10g Database Administrator's Workshop I at UMBC Training Centers -- September 2008.
- Installed Oracle on a home Linux box and developed the schema for the rewrite of the InfraMgr application – 2004.
- Started rewrite of the InfraMgr backend on a home installed Linux box using Enterprise Java Beans – 2004.
- Read Professional Java Server Programming J2EE Edition published by WROX – 2004.
- Training courses at Sun for CORBA, J2EE Enterprise Java Beans – 2001
- C++ programming language course at Montgomery College Maryland – 1992
- Ada programming language course at Montgomery College Maryland using the Janus Ada Compiler - 1988.
- Database Management course at the University of Maryland, involving the RDB Database Management System and the VAX 11780 running VMA – 1987
- Local Area Network Training, Novell Incorporated - 1987.
- UNIX Operating System Training, Integrated Computer Systems, Incorporated – 1986
- BS Computer Science, University of Maryland - 1985.
- Graduate United States Naval Training Type A School - 1975.

## **United States Navy - Antisubmarine Warfare Technician.**

**1973 - 1976**

### **REFERENCES AVAILABLE UPON REQUEST**