

Professional Objective

To work in a challenging and competitive environment and to be viewed as a strong technology advocate providing robust and quality design solutions in areas of Software Application Design / Development and Testing, Business Application Integration and Cloud enablement.

Professional Summary

- ✚ Software Professional with **20+** years of hands-on Technology and Management experience in **Healthcare Payer domain**.
- ✚ Experience handling both Technical and Management roles such as **Solution/Application/Data Architect, API Designer, Lead Software Engineer** and **Delivery manager** for teams spanning 20+ distributed developers onshore/offshore.
- ✚ Hands-on experience with migrating legacy applications to API Driven **Cloud centric architecture** using **Java, Spring Boot, Open API, Swagger, Docker, Kubernetes** and Redhat **Openshift** platform.
- ✚ Proficient in developing distributed applications using **Java Messaging Service (JMS), Kafka** and **Mule ESB**.
- ✚ Sound understanding of Relational Database concepts (RDBMS) with working experience in **Oracle, MySQL, Sybase, MS SQL Server and DB2**, Data Modeling and tuning complex SQL queries and stored procedures.
- ✚ Strong **Object Oriented Analysis** and Design skill with familiarity in Object Oriented languages including Java, Groovy, C/C++, Delphi (Object Pascal) and C#.
- ✚ Designed and Developed **high performance** and **scalable** solutions addressing long term business needs to handle large volume of data.
- ✚ Strong functional knowledge in US Healthcare domain working in projects involving **EDI (X12 837, 835 and 834 formats), Claims processing, Benefit Administration, Enrollment and Consumer Driven Healthcare (CDHP)** systems.
- ✚ Good at problem-solving and troubleshooting complex multithreaded distributed applications involving Java/C /C++ and disturbed middleware like CORBA and IIOP.NET
- ✚ A proven technology specialist credited with multiple process and technology solutions which were implemented based on my recommendations and received excellent client feedback.
- ✚ Possess **natural ownership, technology skills** and have a solid track record of bringing **crisis situations under control**.
- ✚ Worked as Delivery Manager successfully delivering to business commitments motivating and leading distributed teams in an **onshore / offshore** model.
- ✚ In summary, a **self-driven professional with a positive attitude, strong technical skills, good communication, deep interest to learn new technologies, and a passion to deliver high quality software solutions.**

Work Experience

- ✚ **IT Architecture Consultant at Optum**
November 2010 – Present
- ✚ **Senior Architect at Cognizant Technology Solutions**
June 1998 – November 2010

Trainings and Conferences attended

- ✚ Software Architecture Training with Mark Richards (October 2017)
- ✚ NFJS (No Fluff Just Stuff) Software Symposium Minneapolis (March 2016)
- ✚ NFJS (No Fluff Just Stuff) Software Symposium Minneapolis (November 2011)
- ✚ Situational Leadership - UnitedHealth Learning Academy (January 2014)
- ✚ Clear Business and Email Writing – SpeakandWrite.com (March 2010)

Educational Qualification

- ✚ **Master of Science (Honors) in Mathematics** BIRLA Institute of Technology and Science, Pilani, Rajasthan, India
- ✚ **Bachelor of Chemical Engineering (Honors)** BIRLA Institute of Technology and Science, Pilani, Rajasthan, India

Core Competencies

Programming Languages	Java 6/7/8, Groovy, C/C++, C#, Object Pascal, Visual Basic, Cobol, Perl, PHP, Bash/KSH Shell scripting, Scala (Learning), Python (Learning)
JVM Frameworks	Spring 3.x/4 - Spring Boot, Spring Data, Spring Security, Spring Web, Spring Ldap, Spring JDBC, Spring MVC, Spring JMS, Spring Core. Databases - Hibernate 5, QueryDSL 4.x Unit Testing - JUnit, Hamcrest, Mockito Rule engines - Drools, IBM JRules. Logging - Log4J, Log4J2, Logstash Others - iText, Apache Commons, HttpCommons, Guava, RSQL Parser, JiBX
Cloud	Design - Swagger, RAML, Stoplight Deployment - Docker and Docker compose, Kubernetes, Red Hat Open Shift Enterprise/Origin. Public Cloud - Azure ,Terraform (Learning)
ESB	Mule - Mule Runtime Engine 3.x, Management center, Data weave, RAML. Open ESB - Java JCAPS 5
Middleware	Kafka - Producer / Consumer API, Connect, Streams JMS - Active MQ, IBM MQ Series CORBA -Visibroker, TAO, JacORB
Build and Integration	Configuration Management - Git, Subversion, CVS, MKS Source Integrity, Rational Clear Case, Visual Source Safe. Build - Maven, Gradle, Ant, GNU Make Integration - Jenkins Pipeline, Anthill Pro, Cruise control Deployment - XLDploy, Flyway (Database) Others - SonarQube, Fortify, Web Inspect
Databases	Oracle 10/11g - PL/SQL, Pro*C, SQL*Loader, Oracle Data Integrator (ODI) MySQL - Triggers / SQL Sybase 12 - T-Sql, Bulk Loader (bcp) SQL Server - T-Sql, SQL Management Studio DB/2 - SQL Procedures Interbase - Stored procedures NoSQL – Elasticsearch(Learning) , MongoDB (Learning)
.NET	Frameworks - .NET Core, Win Forms, ASP.NET, ADO.NET, Web Services, IIOP.NET Application Servers - IIS 6.0
Others	Agile - CA Rally, Flowdock Collaboration - Confluence, Crucible (Code review) Modelling - Visio, Enterprise Architect, ErWin, Structurizr, Draw.io Security - CA Siteminder, Layer7, Ping Federate (SSO), Kong Load balancers - F5, HAProxy Performance Monitoring - Dynatrace, NewRelic, VisualVM, Parasoft Insure++, Rational Purify Reporting Tools - Tableau, Cognos, Seagate Crystal Reports 7.0, Brio SQR Reports, Quick Reports Compliance - HP SOA Systinet (SOA), Colibra (Data governance) BPM - OpenText Cordys, Alfresco Activiti. Document Management - Alfresco, CleverSafe, Cavo
Operating Systems	Linux, Sun Solaris, IBM AIX, HP-UX, Windows , TSO/ISPF

Project Details

Optum Prepay Review Cloud Enablement

Feb 2018 – Current

Client	Commercial payers
Technology	Kafka, Spark, Java 8, Scala, Spring, Docker, Kubernetes, Mule ESB, Redhat Openshift Origins, MySQL, Groovy, Swagger, Kong, Angular 2.
Description	Optum Prepay Solutions is an Anti-Fraud Recovery product sold to commercial and government payers. The project involves rewriting the existing product to a cloud based solution that can be deployed as SaaS (Software as a Service) on Optum private cloud and public cloud infrastructure.
Role	<p>As a Solutions/Application Architect my responsibilities includes</p> <ul style="list-style-type: none">Working with Business stakeholders, Operations, Reporting and Strategic Product managers to identify the MVP (Minimum Viable Product) for the new software.Reverse engineer requirements from existing the Case and Workflow management tool, document and present them to product managers.Document current and end state architecture and data flow spanning client intake, transformation and enrichment, validations and routing to other subsystems like Analytics, Reconciliation and Reporting.Defining API's for data exchange between subsystem like intake, analytics, case workflow, document storage and reporting.Define Transition State architecture and data migration strategy to move existing customers to the new product.Lead engineers to develop Proof of Concepts (POC) on Kafka, Spark, Activiti BPM and Terraform.Setting up infrastructure - Openshift Origin / Kafka / Kong / Mule / Spark / Jenkins.Working with software engineers to develop CICD (Continuous Integration and Deployment pipelines) pipelines in Jenkins.Work with Delivery managers for Intake, Analytics, Reporting and Intake align sprint deliverables.Define nonfunctional requirements centered on performance, security, disaster recovery, data archival, de-identification and protection.Coordinate with Scrum masters to decompose high level Business features defined in Aha into user stories in Rally.Conducting interviews for recruiting Architects, Software and Test automation engineers for the Business unit.

Common Data Model for Commercial Claims

Apr 2018 – Current

Client	Commercial payers
Technology	Swagger, Avro, ErWin, Collibra
Description	Optum Payment Integrity has several products and solutions for the commercial clients requesting provider, member and claim data. The purpose of Common Data model is to create a common format and schema for claims, Industry Standard Reference data, Client managed reference data. This will facilitate a common intake process for consuming data from clients and standardize Analytics to execute on a common data specification.
Role	<p>As a Data Architect my responsibilities includes</p> <ul style="list-style-type: none">Working with the Information Architect and Healthcare SME for Claims, Provider Networks/Contracts and Enrollment to identify available data elements.Co-ordinate meetings with different Product teams in Payment Integrity Data engineering, Analytics, Ideation, Reporting, Operations to identify relevant/key data elements in their respective business domains.Model schema definition for data elements in JSON, AVRO and Erwin (relational model) and facilitate data mapping specifications from legacy to common model.Closely partner with Client Engineering teams to create a Pilot for CDM for Blue Shield of California Data.Represent Product / Data Engineering in Data governance meetings and facilitate creating process flows for governance and approvals.

- Present the Common Data model (CDM) to Business Stakeholders on a monthly basis to showcasing progress and next steps.

Variance Detection and Alert Services (VDAS)

Jul 2017 – Feb 2018

Client	Blue Cross Blue Shield of Florida
Technology	Java 8, Spring Boot, Angular JS, PrimeNG, Airflow, Tableau, Oracle SQL*Loader, Oracle PL/SQL.
Description	Variance Detection and Alert System (VDAS) is an external-facing monitoring and alert system that links disparate data points from corporate, financial and consumer sources to Payer claims and applies advanced analytics to evaluate relationships, behaviors, and billing, payment, and utilization patterns. These capabilities create provider and member investigation fraud leads, anomaly detection, alert tracking, and identify emerging trends for further analysis, leading to medical cost savings for Payers and Government Health Agencies
Role	<p>As a Solutions Architect my responsibilities included</p> <ul style="list-style-type: none">Identify software and data components needed to address the business use case, document them and present to stake holders.Partner with Senior Management and Business to complete feasibility studies, identify Minimal Viable Production (MVP) requirements and lock down scope.Propose Technology Solution addressing MVP goals, aligning with enterprise standards for Security, Data governance, Technology stack and application architectures.Review the Solution Intent with Product Owners, Business stakeholders and Application Delivery teams, solicit feedback and complete sign-off.Present Solution intent to Optum Enterprise Architects, Security and Data governance team, Infrastructure engineering team solicit their signoff for compliance.Define Non-functional Requirements (NFR) , prioritize and document them for execution by software engineers.Review and Refine Data model for Portal and Reporting database.Setup infrastructure for Development, Test, UAT and Production environments for Portal.Resolve integration issues during internal and User Acceptance Testing between Data Intake, Analytics, Portal and Reporting teams.Define roadmap for VDAS 2.0 Cloud enablement.

Payment Integrity API for Case Management

Jul 2013 – Dec 2016

Client	United Healthcare
Technology	Java 8, Spring Boot, Swagger 2, Docker, Kubernetes, Openshift Enterprise, Gradle, HP SOA Systinet (Compliance), Layer 7 (Security), Rest Assured (Automated API Testing), Adobe Experience Manager (API Documentation)
Description	API for Case Management is one of the first initiatives within Payment Integrity to create Restful APIs that integrates Case and Workflow management portal with other components of product like Data Intake, Analytics, Reporting and Business Intelligence.
Role	<p>As the Application Architect my responsibilities included</p> <ul style="list-style-type: none">Identify and finalize scope for the Pilot Case Management API with the Delivery and Product OwnerUnderstand the enterprise patterns for API Infrastructure provisioning, API Security Patterns, API Design and Certification process in OptumDeveloper.comDiscuss, review and finalize the technology stack and Java libraries to be used.Provision Projects in Optum Private Cloud (Redhat Openshift Enterprise), Docker Hub, Jenkins for Dev, Test, Stage and Prod environments.Coordinate with Optum Enterprise architects to configure Security in Layer 7 and Provision Virtual IPs (VIP) in F5.Create and deploy Docker image for startup Java Spring Boot API application.Create API definition in Swagger, create scripts for creating the Models and Controller (Forward engineering) using Swagger client interface (CLI)Publish API on OptumDeveloper.com following certification process in HP Systinet tool.

- ✚ Create API documentation using Adobe Experience Manager and tools like AsciiDoctor PDF generator.
- ✚ Conduct knowledge sharing and code review sessions with developers.

Payment Integrity Case Tracking System (PICTS)

Jul 2013 – Dec 2016

Client	United Healthcare
Technology	Java 7, JSF, Mule, SVN, Anthill Pro, Alfresco, Oracle 10g, Apache HTTP Server, Tomcat.
Description	PICTS is an Online Portal application to allow Optum associates to work on Prepay and Post-pay cases. It is task driven system that replaces multiple thick client Case Tracking applications.
Role	<p>As the Application Architect my responsibilities included</p> <ul style="list-style-type: none">✚ Evaluation of 3rd party Case Management Tools like Cordys, Appian, Pega and identify the right fit matching Business requirements.✚ Participate in JAD sessions to identify requirements, high level design, data modelling and assist delivery manager to create an execution plan.✚ Shadow end users to identify pain points and reverse engineer requirements from existing legacy applications.✚ Define technology stack for UI, Data layer, Security and User Authentication.✚ Work with Optum Infrastructure team to provision Linux Servers for different environments, install and setup Apache Http Server, configure Siteminder for User Authentication and Virtual IP's for load balancing.✚ Design Flows using Mule ESB 3.x / Java for integrating with Provider Lookup.✚ Create Virtual machine Image with the necessary software tools (Java, Eclipse, Mule, Oracle XE, SQL Developer, SoapUI, SVN etc) for developers to work productively.✚ Conduct meeting with Architecture governance teams on a periodic basis and get their sign-off for infrastructure and architecture changes.✚ Install and configure Dynatrace agents for Performance monitoring.✚ Conduct code reviews and troubleshoot performance issues faced by end users.✚ Create transformations using Mule Data Mapper component for Case and Medical record extracts.✚ Helped tune queries used for Reporting by the Business Intelligence team.✚ Assist Product owner and deliver managers in T Shirt sizing and estimation.

Prospective 2.0

Nov 2010 – Jul 2013

Client	United Healthcare
Technology	Mule ESB 3.x, Java 6, JRules, Spring 3.0, Oracle 10g, Tomcat
Description	Prospective 2.0 is a ESB based solution provided by OptumInsight to identify Claims Fraud and abuse by scrubbing them against analytical engines developed and maintained by OptumInsight's analytics team.
Role	<p>As a Senior Software Engineer my responsibilities included,</p> <ul style="list-style-type: none">✚ Functional enhancements in Java, Oracle, XML, XSLT for onboarding United Health Claims Highway, a new client.✚ Refactor Flows using Mule ESB 3.x / Java Spring best practices facilitating easy maintenance✚ Own and deliver ICD-10 changes for Prospective.✚ Port the Build process from CruiseControl to Anthill Pro and integrate Optum's security scan process (Fortify)✚ Address Security vulnerabilities identified during Fortify Scans✚ Played the role of a Scrum Master and successfully delivered Harvard Pilgrim Migration project involving moving of Prospective from Commercial to United Data center.✚ Developed a Web Services using Mule 3.x / Java 6 / Spring 3.0 / Jersey for delivering Claim Results data to external OptumInsight Payment Cycle Integrity applications like Detects, FCM and FOCUS✚ Migration of scheduled Jobs running on cron to Tivoli Work Scheduler (TWS).

Express Alliance Portal Development

Jul 2010 – Nov 2010

Client	Express Scripts (ESI)
Technology	Java 1.5, Spring WebFlow 2, Spring JDBC, XML/XSLT, Oracle, Mule Open ESB

Description	Express Alliance is ESI's initiative to integrate its clinical programs with multiple, large health plans efficiently. The scope of the current project is to automate the manual process used presently to capture actionable items for targeted opportunities.
Role	As a Solutions Architect / Project Manager my responsibilities included, <ul style="list-style-type: none"> Understand Business Requirements, identify Gaps and resolve them with the Business Analysts and stake holders Prepare initial assessment report, identifying the technology stack, effort estimation and schedule and prepare execution project plan Coordinate review sessions with the Web Content Developers and Business to finalize HTML mock-ups. Drive Data Model discussions to arrive at a normalized schema Identify enhancements to be made to the existing Web service for managing opportunities and design changes to WSDL/XSD Identify Existing web service contracts to get Drug, Patient and Claims information. Participate in Project Status meetings and prepare Status Reports reporting issues, risks and dependencies.

Automated Enrollment and Eligibility verification system

Feb 2010 – Jun 2010

Client	Blue Cross Blue Shield of Rhode Island (BCBS RI)
Technology	Java JCAPS, Oracle, Sybase, Mercator, Business Objects, Linux.
Description	As part of BlueTransIT initiative, BCBS RI is migrating their Managed care IT solution from Legacy IBM Mainframes to FACETS. The Automated Enrollment and Eligibility verification system is part of the BlueTransIT R2 release to migrate all small eligibility groups from the legacy Enrollment application to a new Java based system interfacing with FACETS.
Role	As a Solutions Architect / Project Manager my responsibilities included, <ul style="list-style-type: none"> Reverse Engineer Business Requirements from existing COBOL based Legacy application Conduct meetings with Business Stakeholders to identify new Business requirements and propose changes to existing Business Processes in alignment with the new solution. Estimate work effort, plan resourcing and preparation of project schedule identifying milestones and external dependencies. Prepared a process flow for the overall solution, identify appropriate technology platforms for the functional components and define their interactions. Drive Discussions for Data model design and review High and Low Level Design documents prepared by developers. Work with the BCBS RI ESB (Enterprise Service Bus) team to identify changes to existing contracts, adapting to the new system. Designed a routing component to separate 834 enrollment feeds that should be processed in the new solution versus those that will continue to be processed by the legacy system. Review of Java/JCAPS code for work flow components, Oracle and Sybase Stored Procedures for Business Logic and Business Objects Reporting components.

TRICARE enhancements to Provider Demographics

Jul 2009 – Jan 2010

Client	UnitedHealth Provider Network Data Management (NDB)
Description	UnitedHealth Provider Network Data Management (NDM) is accountable for Physician, Practitioner and Medical group data integrity for all business segments within UnitedHealth Group. NDM is responsible for loading, maintaining and supporting Demographics, Contracting and Pricing data of Physicians, Hospitals and ancillary groups to support all the Health Plans offered by UnitedHealth Group.
Role	As a Business Analyst my responsibilities included, <ul style="list-style-type: none"> Identifying Business Requirements for Provider Demographics and Contracting for Network Data Management TRICARE initiative Gap Analysis between provider related requirements defined in the TRICARE System, Operational and Policy manuals and NDM's Network Database system (NDB)

- Document functional enhancements to NDB to support TRICARE business, conducting brainstorming sessions with Business, System Analyst, and Architecture and Technology teams.
- Create Business Flow diagrams to capture operational requirements for gathering Provider Data, credentialing, loading, validation and error handling.
- Identify changes to interfaces between Provider and Claims Processing systems, design new real time foundations calls to query Provider demographics and pricing data used for claims adjudication.

UHI RIOS Windows Re-Platforming



Jun 2008 – Jun 2009

Client	United Health Group International (UHGI)
Technology	Windows Server 2003 / MS SQL Server 2005 / IBM DB2 9.5 / Visual C++ 2008 / ASP.NET / IOP.NET / C# / Java / TAO / JacORB / Crystal Reports
Description	UnitedHealth Group International (UHGI) is the global arm of UnitedHealth Group, one of the largest and most diverse health care companies in the United States. Headquartered in Minneapolis, Minnesota, UHI brings UnitedHealth Group's wealth of experience, skills and tools to the international marketplace, which is seeing a dramatic increase in health care costs, demand and private markets to insure that for those costs. RIOS is an integrated software solution owned by UHGI for administrating managed care solutions for international markets.
Role	<p>As a Solutions Architect my responsibilities included,</p> <ul style="list-style-type: none"> Proposing the strategy, tools and plan for migrating RIOS from AIX to Windows, support MS SQL Server 2005 and replace Visibroker with TAO CORBA framework. Present the technical execution strategy for the migration to UHGI Technology group and senior management for approval. Designed and developed an extension framework using C#.NET and IOP.NET to facilitate web application written in ASP.NET to interact with the existing business logic in C/C++ Rewrote the existing Java API framework to work with JacORB on Windows interfacing with business logic in C/C++ using CORBA. Managed a team of 15 associates (2 onsite and 12 offshore) for migrating RIOS (UHGI's software solution for international payers) from AIX to Windows. Delivery responsibility for the regular functional enhancements to RIOS. Review weekly status reports, project metrics, identify risks/issues and bottlenecks faced by team during project execution and resolve them with assistance from UHGI's business analyst and project managers. Conduct monthly engagement review meeting with the UHGI's senior management highlighting achievements, future milestones and project financials. Review and present project proposals for new business solutions like Healthcare EDI 5010 and ICD 10 Implementations

EDI Capabilities of Ingenix








Sep 2007 – May 2008

Client	Ingenix
Technology	Linux / C / C++ / PHP / PERL / MySQL / Java
Description	Ingenix Transaction Manager serves as a single, central point of control for routing and monitoring EDI Transactions. It increases administrative efficiency by minimizing paper claims handling (and related expense). Claims submissions can be fully automated and all transaction validation can occur up front, with built-in edits for all payer companion guides. By enabling rich, real-time electronic exchange directly with payers and other trading partners, Ingenix Transaction Manager can reduce payer rejections and resubmissions by more than 50 percent, while accelerating payments and lowering transaction costs.
Role	<p>As a Project coordinator my responsibilities included,</p> <ul style="list-style-type: none"> Participate in knowledge transition sessions on exiting EDI solutions in Ingenix and the technology used to drive the products. Troubleshoot issues and provide immediate / mid-term solutions. Documenting Functional Specification of requirements and identify major change areas in the existing application, for the current product release. Review of Detailed Design documents, source code and Test procedures prepared by team members.

-  Co-ordination with offshore team and managing delivery.
-  Co-ordination of change requests in requirements during the development life-cycle.







Definity Health Production Support

Apr 2006 – Aug 2007

Client	Uniprise Definity Health
Technology	Java, Oracle, WebLogic, Mercator, Linux, Windows
Description	<p>Definity Health, a pioneer of consumer driven health care, was founded in 1998 and became part of UnitedHealth Group in 2004. The company is now responsible for creating and managing consumer focused health strategies across UnitedHealth Group's business which includes account based plans such as Health Savings Account (HSA's) and Health Reimbursement Accounts (HRAs).</p> <p>The scope of the project included regular support activities of Definity's software systems which include the DefinityHealth.com portal and 60 batch applications for processing eligibility, claims, benefit and plan information for members and sponsors.</p>
Role	<p>As System's Analyst / Service co-coordinator my responsibilities included,</p> <ul style="list-style-type: none"> Plan, initiate, participate and document in the initial knowledge transfer process on key applications used in Definity Perform minor enhancements and fix defects in Definity's real-time HRA balance exchange utility developed with Java Messaging Services (JMS) implementation of WebLogic Communicate and co-ordinate with service management of United (UNET) systems including TOPS, GFLX, Summary Check, MEDCO and El Dorado to resolve data and functional integration issues. Work with Definity's IT team to establish and follow standard Production support practices followed by United Health applications. Perform in depth analysis of recurring problems, propose and implement changes to functionality reducing post implementation issues. Initiate and participate in war room calls for slow response of the production portal, identify long running queries / table locks from application server logs and suggest solutions for quick restoration of service. Conduct knowledge sharing sessions with team members (onsite and offshore) on key applications and regular support activities.

RIOS Re-architecture and Maintenance

Mar 2005 – Mar 2006

Client	UHGI (United Health Group International)
Technology	IBM AIX 4.3/5.1, Windows NT/2000/XP Visual C/C++, Visual Age (AIX), C/C++, IBM DB/2 and CORBA services using Visibroker.
Description	<p>RIOS is a flagship product developed by UHGI for claims management, implemented internationally in the Portugal and Hong Kong. The system is built on a 3-tier CORBA architecture using DB/2 for database operations, Power Builder for user interface development and SQR for reporting. The business logic is coded in C/C++ middleware servers on AIX. The scope of the project involved re-write of the RIOS CORBA bridge layer and database interface to increase stability and performance.</p>
Role	<p>As a Project Leader my responsibilities included,</p> <ul style="list-style-type: none"> Documenting Functional Specification of requirements and identify major change areas in the existing application, for the current product release. Effort Estimation based of High Level Requirements. Review of Detailed Design documents, source code and Test procedures prepared by team members. Conduct knowledge sharing sessions with team members on important sub-systems like Enrollment, Benefits and Claim processing. Technical Re-architecture of the application to address performance and scalability related issues. Co-ordination of change requests in requirements during the development life-cycle.

iCES Maintenance

Jan 2004 – Feb 2005

Client	Ingenix
Technology	C#, ASP.NET, Visual C/C++, Visual Age (AIX) C/C++, Windows NT/2000/XP. IBM AIX 4.3/5.1.

Arvind Narsimhan

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Description	iCES is a Rule based validation engine developed by Ingenix Inc. (part of United Health Group), to address procedure coding related errors in Claim processing. It uses a flexible multi-tier architecture and is available in Windows and AIX. The scope of the project is to enhance the product with changing business requirements, fix existing defects, and provide solutions to critical errors (Level 1 defects) reported by customers within a 24-hour window.
Role	As a Project Lead my responsibilities included, <ul style="list-style-type: none">Estimation of Business Requirements.Conduct Technical knowledge sharing sessions on various components like the GUI, Monitor, Rules engine and Database schema.Review of Detail design for completeness and re-use of existing components.Design, Code review and Testing of changes to iCES Web Client coded using C# and ASP.NETAnalysis of Critical errors (Level 1 defects) reported by end-users and provide solutions within 24 hours.Setup of Build, Developer and Test environment on Windows and AIXArticulate Configuration management and source code delivery strategy.Resolve ad-hoc technical problems reported by developers during construction.

Claims Manager Monitor Rewrite

Jun 2003 – Dec 2003

Client	Ingenix
Technology	Visual C/C++, Visual Age (AIX) C/C++, Rational Purify, Windows NT/2000/XP. IBM AIX 4.3/5.1
Description	ClaimsManager is a state-of-the art expert system developed by Ingenix Inc. (United Health Group), to quickly analyze medical claims for coding errors. The purpose of ClaimsManager is to reduce the number of denied claims, and to ensure that the claims submitted are reimbursed for every legitimate service performed. The Monitor is a central agent that processes claims from several input sources (GUI, MQ Series, Batch Loaders, Custom translators) by judiciously using rule-processing engines. The scope of the project is to rewrite an existing monitor in C++ using reusable object design patterns and address stability and performance issues.
Role	As a Technical Project Lead my responsibilities included, <ul style="list-style-type: none">Preparation of the Functional Requirements Specification document from existing C code base.Coming up with a Detailed Object Oriented DesignEvaluation of Open Source libraries like Ace and Boost for platform/compiler compliance, stability and performance.Provide inputs for project estimation and evaluate technical risks.Assist team members in solving threading related issuesPreparation of coding standards document.Writing makefiles to compile code on AIX and address portability issues.Performance testing and solving problems related to performance.Conduct training for members in C++, Oracle Pro*C and reusable design patterns.

RIOS Enhancements

Sep 2001 – May 2003

Client	United Healthcare Group International
Technology	Intel Based Servers, IBM RS/6000, Windows NT/2000/XP. IBM AIX, 4.3/5.1, Visual C/C++, Visual Age (AIX) C/C++, PowerBuilder, Perl, DB2 Stored Procedures, Visibroker for C++, BRYO SQR Reports.
Description	RIOS is a flagship product developed by UHCI for claims management, implemented internationally in the Portugal, Hong Kong, South Africa and Malaysia. The system is built on a 3-tier CORBA architecture using DB/2 for database operations, Power Builder for user interface development and SQR for reporting. The business logic is coded in C/C++ middleware servers on AIX. The scope of the project involved application maintenance, address performance and stability issues in client installations
Role	As a Lead Developer my responsibilities included, <ul style="list-style-type: none">Initial analysis of project architecture, and environment setup at offshore.Identify stability problems due to memory corruption using Insure++Porting of the middleware code from Visibroker 3.x to 4.5

- ✚ Design and develop a utility for gathering system performance, memory usage and Disk I/O to assist capacity planning.
- ✚ Porting of Stored procedures from Sybase to DB/2.
- ✚ Code and Design review for requirements.
- ✚ Tuning DB/2 queries used in Brio SQR for reporting.
- ✚ Conducted training sessions for team members in Brio SQR and CORBA.
- ✚ Designed and constructed the instrumentation framework for profiling RPC usage and timings for tuning.
- ✚ Travelling to Advance Care, Lisbon for system implementation and performance benchmarking.

United Healthcare Rhapsody Documentation

Sep 2002 – Oct 2002

Client	United Healthcare
Technology	Java, ATG Dynamo/Personalization Server
Description	United Healthcare had a requirement to produce technical documentation for their Rhapsody product in its entirety. Rhapsody was a web application that aimed to provide easy flow of information between providers and subscribers. The lack of proper documentation of the Rhapsody product affected its long-term maintainability. The scope of the project was to document all the functional and technical details of the Rhapsody product.
Role	As a Developer my responsibilities included, <ul style="list-style-type: none">✚ Imparting Business Domain knowledge to team members✚ Task Scheduling and Monitoring✚ Co-ordination with Onsite.✚ Conducted training in ATG Dynamo

Web enabling of Staffware eCRM

Jun 2001 – Aug 2001

Client	Staffware Inc.
Technology	Java, Tomcat, Servlets, HTML, JavaScript, CSS, Microsoft SQL Server database
Description	Marketforce was a CRM product offered by Staffware. The scope of the project involved web enabling of the existing client server product. To check response times, a customized load-testing tool was development to simulate 1000+ users performing different transactions outlined in an XML. The results of load testing was stored in a SQL Server database, and different statistics like the average, minimum, maximum response times were reported to the user in the form of graphs.
Role	As a Lead Developer my responsibilities included, <ul style="list-style-type: none">✚ Developed a load-testing tool using Java to measure response time.✚ Developed a user interface for load testing tool using Java/ Swing✚ Developed web based interface for load testing tool using Servlets/CCS/HTML and custom Java charting components.✚ Testing of web application against the existing client server application for functionality.

VIPS MCSource Oracle Porting

Dec 2000 – May 2001

Client	ViPS
Technology	Sun Solaris 6, WINDOWS NT, Visual C/C++ 6, Visibroker CORBA, Sun Workshop C/C++ 4.2/5, ORACLE 8i
Description	An Application Service Provider, VIPS provides service to the health care business like claims processing, fraud detection etc. MCSource is multi-tier data warehouse and decision support system developed by VIPS. The scope of project was to re-host the warehouse available currently in Redbrick and DB2 on Oracle.
Role	As a Lead Developer my responsibilities included, <ul style="list-style-type: none">✚ Impact analysis of compatibility issues between Redbrick and Oracle 8i✚ Identify a strategy to migrate existing code with minimal changes.✚ Designing and Coding a fast load utility using Oracle SQL*Loader emulating Redbrick's TMU utility.✚ Tuning of Oracle queries, using optimizer hit options.✚ Performance Testing and Benchmarking.

Health links POS









Mar 2000 – Dec 2000

Client Amfac, Australia

Technology Windows NT, Borland Delphi 5, Interbase 5.5, Borland Database Engine, Quick Reports.

Description Healthlinks POS is a Point of Sale system with integrated inventory and stock management designed to assist pharmacies in Australia. The scope of the project was to re-engineer an existing Character based system on MS-DOS to GUI on Windows.

Role As a **Lead Developer** my responsibilities included,

-  Requirements gathering and preparation of Functional Specification Document.
-  Detailed Database Design
-  User Interface Design and Review
-  Coding, Unit Testing and Code Review of business functionality modules.
-  Writing of re-usable UI components.
-  On-site client interaction during acceptance testing.
-  Writing external functions for Interbase for data formatting and validations using Visual C++
-  Training of team members in Delphi/Object Pascal.

Corner stone Enhancements





Jun 1999 – Feb 2000

Client Strategic Technologies

Technology WINDOWS NT, VISUAL C/C++ 6(MFC), VBA for Office 97, Sybase SQL Anywhere

Description CORNERSTONE was a Sales Force Automation application developed by IMS Health Strategic Technologies and used by Pharmaceutical Territory Field Representatives, District Managers, National Account Managers and System Administrators. It aids different levels of personnel in pharmaceutical companies to plan, conduct and track activities done on accounts in the market, in order to promote their products.
The scope of the project involved redesign of the User Interface from the existing MDI architecture to Splitter Window framework with Tab sheets, and provides support for embedding custom Active X controls with read/write options.

Role As a **Developer** my responsibilities included,

-  Analysis of UI Code
-  Coding of designed screen layouts using SDI Framework.
-  Coding to embed custom ActiveX controls supporting read/write operations.
-  Testing and peer review.

Pharma Trend Reengineering




Sep 1998 – May 1999

Client IMS Health

Technology COBOL, IBM Mainframes Tools (TSO, ISPF, JCL)

Description PharmaTRend Deutschland is an application providing Market research reports, showing the selling patterns of the Pharmacy products in customer specific markets across Europe. The scope of the project was to re-engineer the system in order to provide faster and better information to the customers and handle increasing market sizes and the data volumes.

Role As a Developer my responsibilities included

-  Analysis of existing code
-  Coding in Cobol and peer-review
-  Testing and Design Documentation.