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SUMMARY

● Tech-savvy professional with a solid foundation in Java and Python, complemented by hands-on experience in database management with Oracle, Vertica and NoSQL MongoDB. Proficient in containerization technologies such as Docker and Kubernetes, adept at orchestrating complex workflows with Airflow. Skilled in leveraging cutting-edge tools to streamline development processes and enhance system scalability.

● Back-End/Platform Developer with over 18+ years of experience in providing solutions, architecture, and projects in Real-time Data Streaming, Data Transmission Framework, ETL/CDC systems, Java/J2EE web-based applications

● Proficiency in developing scalable and testable Real-time Data Streaming/ETL/AI/Business Intelligence Services.

● Key Projects:
  ○ Tesla DataLake for transmitting data in near real-time
● Keywords: Data Streaming, Data Platform, Data Engineering, API, CI/CD, ETL, Big Data, Real-time, Data Modeling

EDUCATION

Bachelor of Engineering in Information Technology from Annamalai University(2004)

TECHNICAL SKILLS

Languages	Python, C/C++, Linux shell script, Java
DevOps	Docker, Kubernetes, Ansible, Jenkins
Data Engineering/Storage	DeltaLake, MongoDB, ClickHouse, Apache Kafka/Spark/Airflow, Debezium, Redis, MySql, Vertica, Hadoop, ElasticSearch
Middleware	TIBCO,Pentaho
Scripts	React, JavaScript, Html, CSS, Shell Scripts
Web and J2EE Technologies	JSP, JDBC, Servlets, JSTL, Struts, Spring, JMS, RMI, JSF, Hibernate, ANT, Soap, EJB, Oracle
Web-Application servers	WebSphere 6.1/5.1, WebLogic 9.2/8.1, Tomcat 6.x/5.x, JBoss
Database	Oracle, Vertica, MySql
XML Technologies	XML, XSLT, DTD, AJAX
IDE Tools	RAD 7.0/6.0, WSAD 5.1/5.0, Eclipse 3.2.1, My Eclipse, XML Spy, TOAD,IntelliJ
Design Tools	Rational Rose, UML
Source Code Control	CVS, Git ,Mercurial
Domain	Pricing and Revenue Management
Big Data Technologies	Hadoop, Apache HBASE, HDFS, Hortonworks Cluster (Prod Environment)
Micro Service	Spring Boot, Java

PROFESSIONAL CERTIFICATIONS

- Extending Hadoop for Data Science: Streaming, Spark, Storm, and Kafka
- Machine Learning and AI Foundations: Value Estimations
- Python for Data Science (From "Cornell University") – **Ongoing**

TESLA Inc. USA   **AUG 2021 – Till Date**
Data Engineering Team

- Designed and implemented a real-time reporting solution within the Tesla One App to provide senior executives with easily visualized key level metrics.
- Achieved ultra-low latency of **less than 0.5 seconds** for critical product data retrieval from millions of records over the network.
- Developed complex business logic to handle deliveries and schedules efficiently within the reporting solution.
- Collaborated closely with cross-functional teams to ensure seamless integration and performance optimization.
- Received recognition for outstanding performance and contributions to critical projects
- Spearheaded the development of a near real-time, configuration-based open-source-like Data Streaming Platform.
- Enhanced developer agility by enabling swift development of complex business logic related to Manufacture, Sales, Delivery, Order, and Insurance data.
- Achieved remarkable end-to-end processing times of **under 3 minutes** through a streamlined, configuration-based approach which **used to take more than 1 Hour**.
- Collaborated with cross-functional teams to ensure seamless integration and adoption of the Data Streaming Platform across various departments.
- Provided technical leadership and mentorship to team members, fostering a culture of innovation and continuous improvement.
- Engineered and successfully launched a groundbreaking Data As a Service (DaaS) platform, revolutionizing API server deployment on Kubernetes.
- Empowered developers to expedite deployment processes effortlessly by introducing a single, straightforward configuration file approach, eliminating the need for extensive coding.
- Streamlined and automated deployment workflows, reducing deployment times and improving overall operational efficiency.
- Collaborated with cross-functional teams to gather requirements, design solutions, and implement best practices for platform scalability and reliability.
- Provided technical leadership and mentorship to team members, fostering a culture of innovation and continuous improvement.
- Recognized for driving technological innovation and delivering tangible business value through the implementation of the DaaS platform
- Designed and developed the Streams Dashboard, a real-time tracking dashboard for monitoring service and sales performance at Tesla service centers worldwide.
- Implemented real-time data processing and visualization features to provide timely insights into service operations and sales metrics.
- Collaborated closely with stakeholders to gather requirements, define user stories, and iteratively enhance the dashboard based on feedback.
- Utilized cutting-edge technologies and best practices to ensure scalability, reliability, and performance of the dashboard in a global context.
- Played a key role in the successful deployment and adoption of the **Streams Dashboard across Tesla service centers worldwide**, enabling data-driven decision-making and operational excellence.
- Received accolades for contributions to enhancing operational transparency and efficiency through the Streams Dashboard initiative

PROS Inc. USA   **FEB 2018 – AUG 2021**
HCC

HCC (Hotel Cruise and Cargo) is a powerful decision support software application that uses a unique combination of forecasting and optimization sciences to assist you in making scientific decisions regarding the price and allocation of inventory to increase revenue

Implementation:
Real time data processing based on the customer requested order data through HTTP calls and Micro Service API calls

Responsibilities:

- Developed real time analytics and ingestion platform using Spark.
- Used Spark-Streaming APIs to perform necessary transformations and actions on the fly.
- Building the common learner data model which gets the data from Kafka in near real time and Persists into HBASE.
- Proficiency in developing and working with Apache Kafka.
- Developed multiple Kafka Producers and Consumers from scratch as per the business requirements.
- Planned and created answer for constant information ingestion utilizing Kafka, Spark spilling and different NOSQL database.
- Developed Spark scripts by using SCALA shell commands as per the requirements
- Performing Unit Testing and SIT, Using Java JUNIT Framework in KAKFA producer side and Spark
- Sprint planning – Agile methodology
- Working on problem tickets to resolve user queries and issues.
- Working on maintenance and enhancement type work request.
- Involved in prototyping the MVC framework integration with hibernate using spring
- Involved in **fine tuning, trouble shooting, bug fixing, defect analysis** and **enhancement** of the DB queries
- Actively look for **optimization in the loads** which execute for a long time
- Involved in the development of module – Appraisal.
- Development of Action Form classes for validations and Action Classes forming the business layer using Spring MVC
- Developed and tested web application using Eclipse ,IntelliJ IDEA

VeederRoot - Fuelquest USA   a Fortive company   **OCT 2016 – FEB 2018**
Senior DEVOPS Engineer
IS360 FuelQuest FMS
IS360 is a Fuel Management System developed and maintained by Gilbarco – VeederRoot.
- FuelQuest develops and delivers **supply chain management** and **tax automation** solutions to suppliers, distributors, buyers, retailers and traders of petroleum products
- **Integrated solution** for inventory management, fuel procurement, fuel logistics and transportation, financial reconciliation, tax calculation and reporting across the downstream fuel sector
- FuelQuest supports these solutions with **professional services** to best serve each customer – from locally deployed, to hosted applications, to remote service provision

Responsibilities:

- Responsible for Production stability and Customer satisfaction SLAs
- Leading cross functional teams across multiple products/solutions in the following capabilities
  - Database Management
  - Index recommendations
  - Query optimization
  - Data archive strategy definition and execution
  - Customer reports
- Managing multiple products and debugs applications issues
- Providing quick workarounds to bring the Systems to OPS normal
- Defining and building monitoring enhancements,plugins and modules
- Actively participating in 24X7 on-Call rotation and handling other duties assigned by manager

- Guiding the team in the issues faced in solving the problems
- Extensively involved in writing Object relational mapping code using hibernate.
- Developed hibernate mapping files for configuring hibernate POJOs for relational mapping.
- Written Hibernate HQL, SQL and Criteria queries.
- Used Java Persistence API (JPA) to development application using data persistence
- Developed Web Services to develop reusable components for the web application
- Extensively used XML to develop web services and to develop WSDL for those web services
- Extensively used Mercurial for creating branches and merging different branches
- Worked simultaneously with multiple Versions of the same product using the mercurial branching
- Created and monitored the build in Teamcity for our product
- Prepared and presented QRM for the Senior Management

Environment: FMS,Pentaho,J2EE, Servlets,XML, Hquery,Hibernate, AJAX, DHTML, CSS, JavaScript, Java Bean, JMS, Junit, Log4j, Eclipse, Weblogic 9.2, Oracle 10g, Solaris, Web Services, ORACLE, Flex, PL/SQL, UNIX, Spring, Mercurial, TeamCity

PROS Inc. USA   **February 2011 – October 2016**
Project Lead
CPRO
Cruise Price and Revenue Optimization System
CPRO is a powerful decision support software application that uses a unique combination of forecasting and optimization sciences to assist you in making scientific decisions regarding the price and allocation of inventory to increase revenue
CPRO continuously updates its recommendations to account for changes in the business mix or objective.The scope of the project involves L2,L3 and L4.Currently taking care of all L3 and L4 activities where L2 is for General Support Questions,L3 is for bug fixing and L4 is for Feature request

Responsibilities:

- Performing the role of Project Lead and onsite coordinator.
- Working on problem tickets to resolve user queries and issues.
- Working on maintenance and enhancement type work request.
- Involved in prototyping the MVC framework integration with hibernate using spring
- Involved in **fine tuning, trouble shooting, bug fixing, defect analysis** and **enhancement** of the DB queries
- Actively look for **optimization in the loads** which execute for a long time
- Involved in the development of module – Appraisal.
- Development of Action Form classes for validations and Action Classes forming the business layer using Spring MVC
- Developed and tested web application using Eclipse ,IntelliJ IDEA
- Involved in designing and developing the Spring JDBC and DAO layers to offer abstraction for the database related code
- Visiting the clients every year to gather their feedback and exploring new opportunities
- Guiding the team in the issues faced in solving the problems
- Extensively involved in writing Object relational mapping code using hibernate.
- Developed hibernate mapping files for configuring hibernate POJOs for relational mapping.
- Written Hibernate HQL, SQL and Criteria queries.
- Used Java Persistence API (JPA) to development application using data persistence
- Developed Web Services to develop reusable components for the web application
- Extensively used XML to develop web services and to develop WSDL for those web services
- Extensively used Mercurial for creating branches and merging different branches
- Worked simultaneously with multiple Versions of the same product using the mercurial branching
- Created and monitored the build in Teamcity for our product
- Prepared and presented QRM for the Senior Management

Environment: PROS,J2EE, Servlets,XML, Hquery,Hibernate, AJAX, DHTML, CSS, JavaScript, Java Bean, JMS, Junit, Log4j, Eclipse, Weblogic 9.2, Oracle 10g, Solaris, Web Services, ORACLE, Flex, PL/SQL, UNIX, Spring, Mercurial, TeamCity

PROS Inc. USA   **November 2010 – January 2011**
Senior Software Engineer

PROS Pricing Production Support and Maintenance:
PROS is a Pricing Tool to effectively Price and Manage the Customer Price List (Contracts). It streamlines the quoting and pricing business rules. PPSS is a powerful decision support software application that uses a unique combination of forecasting and optimization sciences to assist you in making scientific decisions regarding the price and allocation of inventory to increase revenue.PPSS continuously updates its recommendations to account for changes in the business mix or objective. The scope of the project is to provide maintenance and support activities to PROS Pricing Solution Suite. This includes responding to problem reports/calls that are raised by the users. The problems are fixed according to the service level agreement (SLA). The scope of the work also includes an 8x5 support to various production systems and jobs failure.

Responsibilities:
- Development of Action Form classes for validations and Action Classes forming the business layer of MVC based Struts architecture.
- Developed and tested web application using Eclipse
- Involved in designing and developing the Spring JDBC and DAO layers to offer abstraction for the database related code
- Used Java Persistence API (JPA) to development application using data persistence
- Developed Web Services to develop reusable components for the web application
- Extensively used XML to develop web services and to develop WSDL for those web services
- Involved in writing processes to run parallel using multi-threading concepts
- Extensively used TOAD to Connect to Oracle Database and wrote SQL Queries to get the data from the tables
- Used Unix shell scripts to stop, deploy and run the application on test application server
- Wrote Unit test cases and executed them
- Tested the application by deploying that on to development server

Environment: PROS,J2EE, Servlets**,** JSP, XML, Hquery,Hibernate, AJAX, DHTML, CSS, JavaScript, Java Bean, JMS, Junit, Log4j, Eclipse, Weblogic 9.2, Oracle 10g, Solaris, Web Services, ORACLE, Flex, PL/SQL, UNIX

AMKOR Technologies, USA   **October 2009 – September 2010**
Senior Software Engineer
Pricing Project Implementation:
Pricing
Complete quotation process will be handled in PROS and it will be the system of records. Sales Order in SAP requires the pricing information for all the products/services Amkor performs. This pricing information will be fetched from the Quote with in PROS. SAP requires operation level detail pricing in order to invoice its customer.

Quote has a lot of information for sales order and eventually to billing. The flow of data from quote to sales order and then to billing is a critical factor for the accurate customer billing. Therefore we need to capture all the pricing information in details on the quote side. The flow of quote data from PROS to SAP and vice versa needs a direct interface that would enable automatic transfer of pricing data between the two systems

Provides the users with various reports with charts which enable users to determine the price of the product

Responsibilities:
- Involved in getting the functional knowledge of the application directly from Business analyst and converting to Functional and Technical Specifications.
- Involved in gathering business requirements, preparing **design specification** and **designing jobs**.
- Involved in creating Source to Target Mapping documents including transformations.
- Designing **POC** to demonstrate that data can be generated from PROS using web services.
- Designing complex report from the data available in the PROS
- Designing complex jobs to enable data migration from PROS to SAP in the correct order.
- Designing Sequencer jobs to notify incase of any failures in the jobs along with job logs.
- Involved in mentoring team members in **PROS**

- Involved in developing all phases of SDLC by using Rational Unified Process(RUP)
- Development of JSP's as a part of presentation layer and custom Servlets as controller as a part of Struts based architecture.
- Development of Action Form classes for validations and Action Classes forming the business layer of MVC based Struts architecture.
- Developed and tested web application using Eclipse
- Involved in designing and developing the Spring JDBC and DAO layers to offer abstraction for the database related code
- Used Java Persistence API (JPA) to development application using data persistence
- Developed Web Services to develop reusable components for the web application
- Extensively used XML to develop web services and to develop WSDL for those web services
- Involved in writing processes to run parallel using multi-threading concepts
- Extensively used TOAD to Connect to Oracle Database and wrote SQL Queries to get the data from the tables
- Used Unix shell scripts to stop, deploy and run the application on test application server
- Wrote Unit test cases and executed them
- Tested the application by deploying that on to development server
- CVS was used for version control.

Environment: PROS,J2EE, Servlets**,** JSP, XML, Hquery,Hibernate, AJAX, DHTML, CSS, JavaScript, Java Bean, JMS, Junit, Log4j, Eclipse, Weblogic 9.2, Oracle 10g, Solaris, Web Services, ORACLE, Flex, PL/SQL, UNIX

INGRAM Semiconductor Distributor, USA   **April 2009- September 2009**
Senior Software Engineer

EBS:
EBS team (also known as Order Management Group) is responsible for requirements/ requests   related to
•Order Management
•Products
•Vendors/Customers

This project involves in developing TIBCO based web services which retrieves data from SOAP request and converts it into a standard document format and transmits as a TIBCO RV message to the backend system. The output from the system is returned back as TIBCO RV message to the calling service. The TIBCO RV message is converted to a SOAP response and sent across to the calling application / client. TIBCO BW was used to design & administer the process and TIBCO RV was used as the message bus

Responsibilities:
- Requirement study and Functional Specification preparation
- Engineering Design Requirement preparation
- Detail level design preparation
- Involved in analyzing the requirements and developing the business process and exposing them as web services
- Developed custom Application to read the queue and topic from EMS Server
- Developed tester tool to test the Request and Response from TIBCO Server
- Involved in substation to XML and XML to substation mapping
- Involved in creation of WSDL (Web Service description Language) creation
- Writing test cases for bug fixed code for regression check and testing the bug fix code
- Involved in release procedures
- Feasibility study
- Actively involved in the DefectPrevention team

Environment: TIBCO,J2EE, Servlets**,** JSP, XML, Jquery, AJAX, DHTML, CSS, JavaScript, Java Bean, JMS, Junit, Log4j, Eclipse, Weblogic 9.2, WLW 9.2, Cubes, Oracle 10g, Solaris, Web Services, SQL server, Flex, PL/SQL, UNIX

HighMark BlueCross BlueShield, PA   **August 2008-March 2009**
Software Engineer
Estimated Member Liability (Consumer Portal):

The EML tool will give HDHP members a way to estimate their Out-Of-Pocket (OOP) expenses for a number of commonly performed procedures. The member can enter the zip code, select a doctor from the list of doctors available and select the purpose of their visit then the EML tool will retrieve provider allowance and OOP cost (Deductible and Coinsurance) from the Blue Devel Component.

NCQA: This application provides two types of search options i.e search and advanced search. It also provides the users to search the doctor details (who are accepting new patients, with evening and weekend hours) and hospital/facility details. User can also get the details of the accreditation (JCAHO, AOA, and CARF) status and expiry of a particular hospital/facility.

Responsibilities:

- **Involved in system design and modeling using UML and Rational Rose.**
- Designed and modified the Class diagrams, Sequence diagrams and Use Cases and functional specifications.
- Designed and coded business classes using spring IOC and MVC features.
- **Implemented Spring JDBC and DAO layers to form the database related code(CRUD).**
- Implemented the application using Spring MVC Framework.
- Used Spring MVC tags to implemented JSP pages.
- Extensively involved in writing Object relational mapping code using hibernate.
- Developed hibernate mapping files for configuring hibernate POJOs for relational mapping.
- Written Hibernate HQL, SQL and Criteria queries.
- Involved in prototyping the MVC framework integration with hibernate using spring.
- Used Hibernate 2.0 framework for object relation mapping with the persistent database.
- **Developed the presentation layer using JSP, JSF, Tag libraries, HTML, CSS and client side validations using JSF Tags.**
- Designed and develop proprietary user interface for Lump sum insurance payments.
- Developed DAO using JDBCs Prepared Statements, Statements and Stored Procedures to interface Oracle.
- **Using Toad verified ERD (model) and get a list of Errors, Warnings and Hints.**
- Automatically generate SQL code for selected target database using Toad.
- Applied Design Patterns like Service Locator, Singleton, Data Access Object and Value Object.
- **Writing Web Services (SOAP) and invoking   Java and other technologies Web Services (SOAP) by make use of its WSDL**
- Used Ant for Building the application, and completed testing by deploying on Websphere application server.
- Involved in unit testing of each module, integration testing and writing unit test cases.
- Used JavaScript functions for the front-end validations.
- Used Harvest repository as the version control tool.
- Developed Logging Framework Using LOG4J.

Environment: Java 1.5 , JSP, Servlets, Jdbc, Html, CSS, JavaScript, JSF, Hiberante, RAD 7.0, Weblogic 9.0/9.1, Eclipse 3.3, TOAD, Broad Vision, Blue Devel, DCC, IEP, XQUERY, Oracle 9i, Unix Shell Scripting, web Services, SOAP, JSTL, WSDL, Ajax, Harvest, clear quest

Freescale Semiconductor,USA   **May 2007 - July 2008**
Software Engineer
Vendavo Pricing:
The scope of this project is to implement the Quote For Design module in Vendavo Price Management Tool, so that user can create a quote for the part ids for customer and negotiate price with customer. Quote can be created from an opportunity available in external system like Siebel. Customer Response will be sent to customer to negotiate the prices.Price Management is closely related to the other applications like Order Management, Quotation for Order, Order Forecast Management, Inventory handling, Shipping and Invoicing, Distributor Special processing etc.

Responsibilities   :
- Designed new jobs to feed customer data from data warehouse to Vendavo
- Implemented profit analyzer calculations in datastage on data retrieved from QFD records and loaded back to vendavo profit analyzer
- Implemented excel based reports for downloading data from the system and import data back into the system using CSV and XML data import adapters
- Implementation of quoting process for part ids in design phase using Vendavo's Price Agreement.
- Worked on IBM Datastage to migrate the Pricing Interface jobs from Oracle to Teradata
- Design data structure using Vendavo's Price Agreement Entity to build client specific Price Agreement entity which can be reused for any other type of Quote implementation in future.
- Design and implement User Interface which can be used for any other type Quote.
- Design and implement custom quote entitlements based on Customer, Channel, Product Hierarchy and Region.

- Resolved any issues introduced while loading data from external systems to Vendavo
- Provided solutions for special character issue raised while comparing before and after records
- Custom dynamic workflow catering to 6 levels across product hierarchy.
- Custom development of workflow entitlement rules based on various measures such as quantity, margin, price and cost.
- Design and develop more than 10 price matrixes for deal publishing using jasper reports and complex database views.
- Design and develop workflow escalation Rules Program which will be used in pricing to escalate the quote for approval.
- Design data structure for maintaining Customer hierarchy, Blue Chip Incentives, Automotive Customers, Customer Segmentation, Part Suggestions, Part Replacement & Alternates, Disty Coop Program and Standard Fulfillment.
- Develop custom reports such as Quote History, Quote Item Mass Change as a Price Matrix.
- Develop ability to create quote item by retrieving available volume breaks in Price Lists.
- Design and develop ability to add attachments, Product Competition data, specify MFN, perform Revenue Calculation, marking parts a No Bid, Change Tracking, Price Negotiator, Events & Alert

Software Platforms: Datastage, Spring, Hibernate, ORACLE 10g, XML, JSP, JavaScript, Excel Macro,WebSphere, Vendavo specific languages like OMI, UII, VSL and Adapters

Gale Thomson, USA   **February 2006 - April 2007**
Software Engineer
CAPM - The CAPM architecture is robust and flexible, so that it's services are leveragable, re-usable and extendable for use by other business units within Thomson Learning and possibly within other market groups of the Thomson Corporation. The CAPM project provides, management and enforcement of rights and entitlements both to User Groups and individual Named Users.This takes care of licensing of products to User Groups and individual Named Users, also maintaining their preferences.

Responsibilities:
- Extensively used XSL to generate reports
- Involved in developing SingleSignOn authentication which is a core feature in this project.
- Efficiently lead the team members who were new to the project and involved in getting requirements from the client & providing technical details to the team.
- Participated actively in the code re-view and helped the team in developing code in business practice. Also coded service classes which involves IP authentication and parsing TOC provided by client

Software Platforms: JAVA, XML, XSL, Apache Tomcat 5.5.28, JDK 1.5, Spring, Hibernate, Spring WebFlow, JSP, ORACLE

April 2005 - March 2006(HTC Global Services)

Software Engineering and Management Training(SEM)

Details: SEM involves training of candidates on various Technologies including JAVA,ORACLE,UNIX and C++.Apart from Technical subjects,management lessons are also taught which involves Organizational Behaviour and Software management