

PRASAD RAVVA

TECHNOLOGY EXECUTIVE

Accomplished senior technology leader with experience in overseeing the design, development and implementation of enterprise architecture and software solutions for diverse organizations. Expert knowledge of full Agile/SDLC methodologies including Architecture, requirement gathering, requirements analysis, functional and detail design, development, testing and implementation of enterprise software applications. In-depth background in banking, insurance, financials, pharmaceutical, telecommunications, and wireless systems. Exemplary communications, interpersonal and leadership skills. Core Competencies include:

Strategic Planning & Execution
Cross-Functional Collaboration

Enterprise Architecture
Team Building & Leadership

Software Development
Relationship Building

TECHNICAL PROFICIENCIES

CERTIFICATIONS:	Certified Enterprise Architecture (EACOE) Certified Safe Agile (4.5) Certified Java Programmer Certified Oracle PL/SQL Developer Certified Mule Soft Architecture
TRAINING:	Workday HCM and System Integration modules Cloudera Big Data Applications (Hadoop, Kits, Sqoop, Flume, Hive, Impala ...) & Administration Mule Soft Solution Architecture and Design
LANGUAGES & OTHER TOOLS:	Java, C, C++, .NET, C-Sharp (C#), SQL & PL/SQL, Unix Shell Scripts,
DATABASE:	MongoDB, Oracle, MySQL, SQL Server, PostgreSQL, DB2 UDB, SYBASE
FRAMWORK/ TOOLS:	J2SE, J2EE, HTML, JavaScript, Spring framework, Hibernate, Angular, Node JS, Python, Spring Boot, Sprint Batch
WEB /APPLICATION SERVERS:	IIS, Tomcat, Apache, JBoss, WebLogic, WebSphere
MOBILE:	Android SDK, iOS SWIFT SDK
VERSION CONTROL TOOLS:	GIT Hub, Bit Bucket
CLOUD:	Amazon AWS Cloud, S3, SQS, RDS, EC2, Lambda, DynamoDB, Salesforce, Workday, Azure
ESB:	Mule Soft, Any point Studio

PROFESSIONAL EXPERIENCE

SmartWyn/Deloitte/IRS, NJ (*Active MBI Clearance*)
Senior Consultant

05/24 - Present

Participated in the design and development of optimization and enhancements for the Individual Taxpayer Processing Engine (ITPE), conducted analysis of Financial RECAP Reports (FRR), implemented micro-batching solutions, and performed research spikes on AWS components to support ITPE modernization.

- Participated in the IMF modernization project for the Taxpayer Processing Engine under the LTIS3 contract, focusing on J12 file processing and integration with MongoDB database processing.
- Optimized ITPE performance in **Spring Batch** by integrating Executor Service for concurrent database calls, configuring asynchronous readers with Completable Futures, and enabling concurrency in processors through asynchronous execution and fine-tuned batch parameters.
- Recommended range-based and cursor-based pagination to improve query efficiency, with range-based suited for ITPE. Provided MongoDB Driver solutions for versions 4.3.8 and 4.8+ and implemented ITPE code updates.
- Analyzed the FRR design, created a comprehensive design document outlining core components, tools, processes, and dependencies, and detailed the **Java** DS Framework, configurations, and data refresh processes for the target state.
- Enhanced ITPE performance by reviewing and optimizing the current model, mapped code changes, documented updates for smooth implementation, and provided design guidelines for the AD team.
- Developed **Spring Boot** micro-batching solution to track MongoDB transactions and automate REST API calls. Implemented real-time monitoring using **MongoDB** document watch, triggering immediate processing.
- Created a presentation on rollback and retry strategies with sample code demonstrations. Designed and tested Saga and Circuit-Breaker patterns for distributed transactions using sample implementations.
- Analyzed limitations and developed solutions for efficient DynamoDB bulk loading, designing a multi-threaded upsert approach for concurrent data chunk processing.
- Researched and tested efficient solutions for DynamoDB batch load limitations using multi-threaded upserts and integration with **AWS** Step Functions and Lambda.

Designed and delivered holistic solutions for a wide range of client projects.

- Engaged in designing and architecting a groundbreaking hybrid solution for a startup focused on creating a global social platform to showcase hidden talents. This innovative initiative encompasses both mobile and web platforms.
 - Collaborating with designers to develop wireframes and mockup screens aligned with project specifications.
 - Creating database schemas, tables, procedures, and streamlined views to enhance reporting efficiency.
 - Establishing an AWS infrastructure encompassing EC2, RDS (MySQL), SNS, SQS, S3, and implementing a robust backup strategy.
- Played an architect developer role in **SnapLogic** Bulk Load Snap
 - Engaged closely with the SnapLogic team to analyze existing challenges and requirements, leading to the creation of a comprehensive design and solution.
 - Engineered an advanced Bulk Load Java multithreaded solution within the SnapLogic Cloud platform, resulting in a remarkable 250% enhancement in data loading efficiency. Successfully tested against **Oracle** and **MySQL** databases tables of ingestion process, handling up to 100 million records and 500 GB data files.
 - Leveraged **Java**, **SnapLogic** API, and SQL Scripts for seamless integration. Maven for building the artifact.
- Played an architect and lead role in Mazar's Audit Management System
 - Leading the development of encryption key generation and encryption/decryption algorithms with **Java** API and AES algorithm, ensure security for files and content. Created REST API using **Spring Boot** for business functions.
 - Implemented efficient files transfer mechanisms via SFTP and jump host utilizing Java and JSCH API.
 - Created **stored procedures** for error handling, status tracking and archival of the data from MySQL to Oracle.
 - Seamlessly integrated with Azure Key Vault for secure management of secret keys, including encryption and RSA key values, leveraging Java and Azure API.
- Led the **DevOps** efforts for **Ansys** team, including **CI/CD** pipeline configuration, YAML script development, build and deployment processes, in the Salesforce and MuleSoft integration of case management project.
 - Designed, developed, and implemented automated CI/CD process on GitHub, encompassing tasks such as repository checkout, compilation, building, version control, deployment, and environment parameter configuration.
 - Implemented Azure Key Vault for secure key management, established comprehensive logging, metrics, analytics, and infrastructure in Microsoft Azure Cloud Platform.
 - Designed and implemented the **MuleSoft Anypoint Platform** on cloud infrastructure, collaborating closely with the MuleSoft team. Orchestrated seamless integration of APIs and services, configuring, and managing platform elements including environments, user roles, business groups, VPCs, load balancers, monitoring, policies, security features such as certificates, Access Token, and OAuth.
 - Collaborated with the Development team by establishing policies, and CI/CD build processes, while managing errors, exception, and logging protocols. Developed RAML Spec, REST APIs, and Flows using API Kit within Anypoint Studio. Conducted thorough testing using Postman Rest client.

RAVVA LLC – Startup
CTO & Co-Founder

11/2019 – 12/2022

Innovated, designed, developed, and patented MiCOTAG (**Each story has its own tag!**) enterprise solution for tagging data with multimedia content, enhancing real-view experiences for paper and printed products. Currently implemented in EMR on smartcards and Education on Smart Labels (4Y's).

- Created and implemented a comprehensive strategy and design to expand the concept's use across multiple domains.
- Created and delivered compelling presentations to investors, customers, and marketing teams.
- Conducted user interviews, surveys, and proof-of-concepts. Evaluated competing products and software.
- Native desktop with C#, Android with Android SDK, and iPhone with Swift applications were created, including features such as media recording, uploading, viewing, and accessibility enhancements for visually impaired users via voice prompts.
- Applications designed with NFC/QR to support EMR on Smartcards and educational content on Smart Labels.
- The FFMPEG API was used to transcode audio/video to M4A and MP4 formats, allowing for seamless playback.
- For efficient communication with the server, implemented **Java** for server-side processing and **Spring Boot** for REST APIs.
- Crafted database architecture includes design, table creation, and index implementation, reporting views and optimization.
- Used C# to create desktop applications for corporate clients, enabling features such as media upload, analytics, and media size compression. Additionally, created operational tools for unique QR code generation, tag validation, and testing.
- Set up Amazon AWS cloud infrastructure, including EC2, S3, SNS, SQS, RDS (MySQL), and Apache Tomcat, to ensure reliable and scalable operations.

Vice President – Development Manager

Managed and led a global team that provided support for forecasting, hiring, reviews, task allocation, mentoring, debugging, coding, code reviews, solutions, and app design. Patents were issued for data distribution design and Open Office Environment arrangement. Data distribution design has been implemented and ensuring consistent operations over time.

- Developed strategies to ensure compliance with international data retention standards, optimizing data distribution and maintaining data governance at BofA.
- Adopted Agile processes with 2-week sprints for initiatives and 4-week Kanban for BAU projects.
- Consolidated data from Oracle Financials and PeopleSoft into Workday, reducing ERP licensing and maintenance costs, and integrated with Workday APIs.
- Led AI/ML initiatives to improve job feed generation and talent selection, using Python (PySpark, Pandas, NumPy) and visualization tools (Matplotlib, Seaborn).
- Implemented Data Lake infrastructure for seamless data streaming from Hadoop HDFS to Oracle via Kafka.
- Designed and deployed an enterprise service bus architecture with MuleSoft REST APIs, reducing batch processing time to real-time data access.
- Designed MuleSoft infrastructure for load balancing, disaster recovery, and API management.
- Supported 10k simultaneous requests with dynamic search, rate-limiting, logging, Redis caching, and OAuth.
- Orchestrated HR data integration between Hadoop, Siebel, and Salesforce with Spring Boot and MuleSoft.
- Managed large-scale global projects like OUS Records Retention and Brexit.
- Optimized infrastructure by consolidating data centers, achieving a 35% performance improvement.
- Delivered multi-threaded bulk processing solutions for batch processes, reduced processing time by 35%.
- Optimized Java processes using JConsole, JProfiler, and corrected memory consumption and Garbage Collection.
- Developed Oracle SQL and PL/SQL frameworks for security, logging, and data integrity checks.
- Contributed to a management portal using Angular and TypeScript for reporting, auditing, and KPI tracking.
- Implemented CI/CD pipelines with Jenkins, GitLab, Ansible, Maven, Docker/Kubernetes for efficient deployment.
- Provided L3 support, used Autosys job scheduling.

ADDITIONAL PROFESSIONAL EXPERIENCE

- **Verizon Wireless**, Technology Consultant, MyVerizon Mobile App for Mobile Clients
- **AirArts Inc., - Startup**, Director of Technology & Co-Founder, Context Communications with 2D/NFC Codes
- **Merrill Lynch Inc.**, Lead Developer, Finance Technology, RDR & Business Intelligence
- **Standard & Poor's (S&P)**, Senior Consultant, Risk Solutions, Credit Risk Tracker & Credit Model Library
- **Prudential Financials**, Senior Consultant, Insurance, and underwriting

EDUCATION

- **Master of Business Administration (MBA), Global Business Strategy**, Deakin University, Australia
- **Post Graduate Program, Management**, IMT, India
- **Master Diploma, Business Computing**, Tata Unisys, India
- **Bachelor of Science (BS), Computer Science**, Nagarjuna University, India

AWARDS AND HONORS

- National Award Winner as Best Programmer, India
- Awarded highest marks in Physics at Nagarjuna University, India

PATENTS

- System and method for storing and retrieving multimedia messages on low-cost tags to facilitate contextual communications (# [REDACTED])
- System and method for multimedia storing and retrieval using low-cost tags as virtual storage mediums (# [REDACTED])
- Using Low-Cost Tags as a Virtual Storage Medium for Multimedia Information (# [REDACTED]) – 2014
- Data Transformation Tool for down streams data distribution (Bank of America) – (#10,956,408) – 2021
- Arrangement of Open Office Environment Based on Employee Productivity (Bank of America) –2022
- Voice Assisting Interactive Two-Dimensional Barcode System for Novice or Low Vision Users (MiCOTAG) - 2021