

# RESUME

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Rengasamy Venkittaraman (Architect)

Present Company : Baxter

Experience : 17 Years

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## ROLES

Working as solution architect for modernizing legacy J2EE enterprise application to microservice based cloud native architecture using open source technologies for objectives of high availability, fault tolerance, scalability, performance, observability, openness, extensibility, data integrity, maintainability.

As a seasoned Architect, I have consistently delivered high-quality solutions by effectively leading and managing cross-functional teams. I excel in complex development tasks, providing technical guidance, and ensuring seamless implementation of frameworks and functional components. My ability to foster collaboration and drive results has contributed to successful project outcomes.

- Proven track record in Architecture with a focus on team management and technical leadership.
- Successfully led cross teams of associate architects and senior developers in delivering complex projects.
- Demonstrated expertise in cross functional team collaboration for solution & deployment architecture/frameworks
- Proven ability to mentor and guide team members to achieve project goals.

My work includes:

- Technical Guidance for Architects & senior devs
- Prepare Reference Architecture for teams/architects
- KPI based reviewing of architecture, solutioning & framework
- Technical road map preparation
- Proof of Concept & Prototyping
- Architecture & Solutioning
- UML Design
- System Design
- Code Review
- Performance Tuning
- Technical Documentation
- RFP Evaluation & Estimations

## PRIMARY SKILLS :

- Java (17, 1.8, Functional Programming & Reactive Programming)
- J2EE (JSP, Servlet, JAXP, JAXRS, Javascript, EJB3, MDB)
- Spring (Core, AOP, Batch, Security), Spring Boot (Reusable framework for cross cutting)
- Microservices Architecture (Hexagonal Architecture, Event Driven Framework, REST)
- RDBMS, noSQL (MongoDB), TDD, Rule Engine (Redhat BRMS)
- UML, Solution & Deployment Diagram
- Cloud Architecture & Solutioning
- Enterprise Integration Solutioning (Kafka, ESB/Apache Camel, GRPC, Protobuf)
- Front end technologies (HTML, CSS, JavaScript, JSP, ReactJs)

## SECONDARY SKILLS :

- AI/ML, Rust, Python, Data science

## TOOLS:

- **AWS/Azure** : EC2, Bean stack/App service, API Gateway, ECR, EKS/AKS, RDS, IBM MQ, Cognito/Azure AD, Cloud Watch/Azure monitor, X-Ray/Azure App insight
- **Server** : Jboss, Tomcat, Weblogic
- **Database** : Oracle, MongoDB
- **Integration Solutions** : Messaging middleware (IBM MQ, Kafka), API management (API gateway), ESB (Apache Camel), Spring Integration
- **Profiling** : JProfiler, Eclipse Memory Analyser, Jconsole, Dyna Trace
- **Version control** : git
- **Rule engine** : RedHat BRMS
- **Testing** : Jmeter, Dependency check, ZAP, App Scan, Nessus Scan
- **CD/CI** : Maven, SonarQube, Jenkins
- **Documentation** : Plant Uml, Mark Down file, Draw.io, Visio, Figma, Event Catalogue, Swagger, Maven Plugins

## ONSITE EXPERIENCE :

Client	Purpose	Year
TravelSky (Beijing,China)	Application design walk through & product cut over plan & design	2013-2015 (Duration : 1 years)
BMW (Munich,Germany)	Knowledge transfer for ramping up team in offshore	2016 (Duration : 1.5 Month)
Iberia (Madrid,Spain)	Architecture & product capability presentation	2022 (Duration : 3 Weeks)

## WORK HIGHLIGHTS:

- **Team Rampup & Technical Expertise Building**
  - Experience of building a team of size 25 via KT/collaboration from Germany to India
  - Interviewing technical candidates
  - Technical Knowledge transfer planning and execution
  - Conducting Walk through sessions on Architecture,design & solutioning
  - Guidance,review,roadmap preparation,sprint grooming for team's technical activities
- **Technical Review/Guidance & Cross functional Team Collaboration**
  - Evaluating,Identifying & recommending improvements of Architecture,Framework solutioning based on
    - Architectural KPIs :
      - Scalability,Reliability,Security,Performance,Maintainability,Openess,Extensibility, Governance
    - Framework KPIs :
      - Adoption rate,Time to Market,Cost effective,Quality,Value add
  - Prioritizing and grooming Sprint Work items based on
    - MoSCoW Method,Value vs. Effort Matrix,Risk-Based Prioritization,Dependency Analysis
    - Requirement Refinement,Story Point Estimation,Task Breakdown,Acceptance Criteria Definition,Dependency Identification,Backlog Refinement
- **Solution Designing & migrating Legacy J2EE tech stack to spring boot**
  - Hexagonal Architecture using Domain driven design
  - Event Orchestrastion using event driven design
  - Cloud native solutions such as Application gateway, Server side load balancer, Containerization, ECR, EKS, Cloud Watch, X-ray
  - Arhitecture Refactoring :
    - Database Connection Pooling : Custom Connection pooling to Hikari
    - Transaction Manager : Jboss Narayana Tx Manager to Atomicas
    - Resource Adapter : XA Transaction management with Spring Transactions

- **Reuseable library** for cross cutting concerns : Custom Parser,Security,Logging,Auditing,Internationalization,Validation,Exception Handling
- **Observability Solutioning for Monitoring & Auditing**
  - Application performance monitoring : X-Ray & Jaegar
  - Infrastructure monitoring : X-Ray and Cloud Watch
- **Performance Tuning**
  - Deadlock detection : DB trace file analysis for lock contention queries & fixing lock sequence
  - Memory Leak : Analysing the Jprofiler Dominator Tree,Objects with Retention,Leak Suspects for memory leaks
  - Performance Improvement : Identify Cacheable data, Reduce intensive resource access - file access,DB connection pooling, Reuse heavy objects thread-safely, reduce stack trace usage,avoid parsing,serialization
- **Reviews**
  - Custom Sonar rules coding & deployment when required
  - PIT Test report analysis and review to eliminate conunter productive test cases
  - Design & code review for performance, fault tolerance & recovery
  - Highlight refactoring techniques for aligning code with SOLID principles
- **Rule Engine** implementation and integration with enterprise application
- **Automation** : Project reportings such as Jar Licensing,documentation,PIT Test reports using Custom Maven plugin
- **Continuous Documentation** Semi Automated : Architecture document, Installation document, C4Model document, Architecture design record document,other UML diagrams

## NOTEABLE PROOF OF CONCEPT :

- Workflow diagrams in BPMN tools
- Automate complete technical documentation using Architecture Rules
- Automation of Containerization & Deployment Orchestration without docker file & deployment.yml
- Open Source AI model for Automatic seat assignment using hard and soft constraints
- Ahead of Time Optimization using Gravaal VM for performance gain
- XML Schema based UI code generation
- Data transformation using Rust for high performance

EXPERIENCE BREAKDOWN:

Organization	Designation	Joining Date	Relieving Date	Project	Domain
Baxter	Architect(Senior Principal Engg)	2023	Present	Patient Monitoring (FLC)	Health Care
Unisys	Architect	2017	2023	Order Management System (Aircore)	Airline Passengers Transportation
NTT Data	App Software Dev Principle Consultant	2012	2017	EFA (BMW)	Automobiles
Sapient	Associate L2	2010	2012	Omgeo,Vodafone	Banking & Telecom
Caritor	Senior Software Engineer	2007	2010	Airline Reservation System (Aircore)	Airline Passengers Transportation

EDUCATION:

Degree	Year of Passing	Name of University Affiliated/Board of Education	Percentage
B.Tech (Information Technology)	2007	Anna University	76%
Higher Secondary Exam	2003	Tamil Nadu State Board	91%
SSLC	2001	Matriculation	85%