RESUME

Rengasamy Venkittaraman (Architect)

Present Company	: Baxter
Experience	: 17+ Years
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Work Location	: Bangalore

ROLES

Led J2EE legacy app modernization to cloud-native microservices using open-source for high availability, fault tolerance, scalability, performance, observability, openness, extensibility, data integrity, and maintainability.

- Seasoned Architect with a track record of high-quality solutions through effective leadership and cross-functional team management.
- Excel in complex development, technical guidance, and seamless framework implementation.
- Proven Architecture track record with team management and technical leadership focus.
- Successfully led cross-functional teams (associate architects, senior developers) in complex project delivery.
- Demonstrated expertise in cross-functional collaboration for solution & deployment architecture/frameworks.
- Proven ability to mentor and guide team members to achieve project goals.
- **Extensive domain knowledge in Airlines - Flights,Seating,Inventory,Load Control,Booking,Ticketing,React,OMS**

My work includes:

- Architecture
  - Prepare Reference Architecture & Platformization
  - Cloud & Architecture Solutioning
  - RFP Evaluation & Estimations
  - Web Security Review & Evaluation
  - System Design
  - Context,Component,Container/deployment,Code/UML diagrams (C4 Model)
- Development
  - Proof of Concept & Prototyping
  - Code Review
  - Performance Tuning
- Technical Leadership
  - Technical Guidance for Architects & senior devs
  - KPI based reviewing of architecture, solutioning & framework
  - Technical road map preparation
  - Requests for Information (RFI), Requests for Proposal (RFP),estimations,product cutover solutioning.

PRIMARY SKILLS :

- Java (Functional Programming & Reactive Programming)
- J2EE (JSP, Servlet, JAXP, JAXRS,Javascript,EJB3, MDB)
- Spring (Core, AOP, Batch, Security),Spring Boot (Reuseable 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 & Deployment Solutions (Docker,Kubernetes)
- Enterprise Integration Solutioning (Kafka,ESB/Apache Camel,GRPC,Protobuf)
- Front end technologies (HTML, CSS, Java script, JSP,ReactJs)

SECONDARY SKILLS :

- AI/ML (RAG,AI agentic Systems,ML algorithms),Rust,Python,Data science

TOOLS:

- **AWS/Azure :** Kubernetes, Serverless Computing (AWS Lambda, Azure Functions) & other cloud native components on Compute,Network,Memory,Observability,Database, Middleware,Containerization,Orchestration
- **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:

- **Technical Guidance,Rampup & Expertise Building for team**
  - 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
    - Architectural KPIs :
      Scalability,Reliability,Security,Performance,Maintainability,Openess,Extensibility,etc
    - 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
  - Arhictecture 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
- **Application integration with RAG based insight,ML algorithm for pattern based insights & Agentic AI design**

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)	**Airlines-OrderManager,Inventory, DCS,Payment, Reaccomodation**
NTT Data	App Software Dev Principle Consultant	2012	2017	EFA (BMW),Aircore	Automobile,**Airlines-OrderManager,Inventory, DCS,Payment, Reaccomodation**
Sapient	Associate L2	2010	2012	Omgeo,Vodafone	Banking & Telecom
Caritor	Senior Software Engineer	2007	2010	Airline Reservation System (Aircore)	Modules Worked **PSS-Flights,Inventory,Seating, Load Control,Booking,Ticketing, Reaccomodation**

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%