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
- XML Schema based UI code generation
- 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)	Airline Passengers Transportation
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%