

## **Summary**

I am a Senior Software Engineer. I have worked as a developer, team lead, and architect in 9 plus years of developing applications and frameworks. My special interest lies in scalable architectures, distributed computing, developing tools/libraries, service frameworks and presentation frameworks. I like to focus on building generic reusable components.

I also have experience in participating and contributing towards the strategic and tactical technology decisions in the course of my work.

I have spent last four years building AS3/Flex expertise and solving various RIA problems; I have spent last eight months developing Social Games SDK, written in AS3 supported by PHP backend. Following are my core strengths:

- Core Java, Flex/AS3.0
- Frameworks like Spring, Hibernate, BlazeDS, Swiz and AMFPHP
- Architecture and System design.
- XP methodology, Agile Development, and Design patterns
- Evangelizing new technologies within the team, across teams and at the exec levels.
- Worked in all stages of Software Development Lifecycle.
- Requirements refinement process experience with the functional and business teams
- Strong communication skills and initiative.
- Lead large and small development teams.
- Trained team members and new hires.

## **Education**

Bachelor of Engineering in Computer Science    2001        Amravati University

## **Employment History:**

1. PlayFirst Inc. – May 2010 - Current
2. DemandTec Inc. – Jan 2010 – May 2010
3. Pramati Technologies – Oct 2005 – Dec 2009
4. Golden Source – Apr 2004 – Sep 2005
5. Patni Computer Systems – Sep 2001 – Mar 2004

## **1. PlayFirst Inc.**

### **a. Social SDK – (May 2010 – Current)**

### **Lead SDK Architect**

PlayFirst Inc. is creator of Dash (Time/Resource Management) based Casual Games that started its Social Games division in 2009 September. I joined the division as the SDK Architect in May 2010; at the time the games were being built with the game logic on the server side. I helped build the architecture of social games from a less efficient Server Controlled Model to more crisp and coherent Client Controlled or "Authoritative Client" model.

#### **Development Environment:**

ActionScript 3, FlashBuilder4, PHP, AMFPHP

#### **Contribution:**

##### **Architecture**

- Architecture and Design of the "Authoritative Client" model, where client controls the game logic and updates the server periodically of any state changes of the user through the game play. (Limited client-server chattiness.)
- Services Layer design for making a generic platform across divisions and games in the organization.
- AMF Adaptor layer design for bridging the generic PHP Services layer and ActionScript3 client communication based on AMF protocol. (Used AMFPHP as the underlying framework.)

##### **Code**

- SDK API and default implementation library for Generic Services Layer that allows potentially any flash game to become social by integrating with it.
- AS3 framework for client-server communication using AS3 Remoting. (Not the Flex in-built version)
- Design and Implementation of client side abstract persistence mechanism based on the concept of generic data stores that can hold any type of data in a key-value format.
- Monetization API through the SDK with default implementations for Facebook Credits and SocialGold.
- Metrics API for capturing in game metrics with varied sampling rates and plug-in/plug-out design.
- Generic and default Priority queue implementations used by pop-ups manager and messaging manager.
- JavaScript Utilities for back and forth communication with the game client.

**Evangelism**

- Presenting to the developers and team leads to explain the design and demonstrate the features of SDK.
- Game code walkthroughs/demonstrations for showcasing the power of SDK as opposed to writing boilerplate code.
- Encourage and demonstrate the use of Design Patterns and how they were employed in the SDK to provide elegant solutions for tricky problems.

## 2. DemandTec Inc.

**a. UI Infrastructure – (Jan 2010 – May 2010)**

**Software Architect**

I joined the Platform team at DemandTec Inc. that worked on providing the infrastructure layer with the middle-tier functionality. And presentation layer infrastructure that is responsible for dynamic meta-data driven UI generation. DemandTec Inc. has been providing tools for Retail Industry, with its Pricing, Promotion, Deal Management and many such niche products, for over a decade.

**Development Environment:**

Spring, Hibernate, Flex, Flex Builder, DB2, Maven, JUnit, Flex Unit, XML

**Contribution:**

- **Flex**
  - o Custom Components/Services – Components designed for reuse over DemandTec’s SaaS platform.
  - o Rendering Engine and Component Factory – For providing a uniform rendering strategy, definite lifecycle stages and mechanism for extensibility,
  - o Swiz Framework – MVC framework to separate concerns and structural components in the design.
  - o FlexUnit, FlexMojos – For Maven integrated Unit testing of Flex’s non-visual classes or services.
- **Hibernate**
  - o Guiding the Application Team’s entity design to ensure maximum leverage out of the ORM layer and JPA best practices.
  - o Reviewing Application team’s Entity Relationship Model to ensure optimal engineering approach was being followed.
  - o Re-Factoring of the legacy code to introduce declarative transaction and integrate with the new infrastructure services.
  - o Introduction of audit logging interceptors and security filters.
- Biz Object Layer – Custom Business object layer used as an abstraction to support any underlying ORM technology. My contribution was in helping the core developers try out various Use Cases that made sense from the UI Infrastructure perspective. The idea was to make it a perfect abstraction.
- Spring Enablement – Most of the services were manually instantiated and wired together to form a complex mesh in the DemandTec legacy platform. With the new infrastructure I introduced the Spring based architecture for the newly designed UI Infrastructure services to interact with the legacy services.

## 3. Pramati Technologies

**a. BI Framework – (Client: Amitive Inc.) (Jul 2009 – Nov 2009)**

**Principal Engineer/Architect**

BI framework is generic application framework designed on top of Unity platform for extracting, transforming and viewing reports as charts

**Development Environment:**

XML, Jaxb, JAX, Spring, Hibernate, Flex, Flex Builder, Unity Platform, **RESTful** Web services

**Contribution:**

- Chart Controller Web Services – Developed a hierarchy of controllers, with generic interfaces, and default implementations, exposed as RESTful Web services, with Chart Specific parameters passed as query string.
- BI Controller – Java classes working together with XML transformation layer, to transform data received from the data providers.
- Summarization Service - For synchronization of Transactional data with archived data, the Java layer services used to intercept the main transactional classes were re-factored to provide a general interception layer for any kind of transactional data in the system.
- Managing India based team of 5 developers.

**b. Orthera – (Client: Amitive Inc.) (Feb 2009 – Jun 2009)**

**Principal Engineer/Architect**

This was RIA project in which a customer of Amitive required a custom designed rich internet application for order creation that could work from a retail point of sale location.

**Development Environment:**

Spring, Hibernate, Flex, Flex Builder, Unity Platform, JBoss/Flex Web-Services Platform, BalzeDS remote service endpoints

**Contribution:**

- Implemented a sophisticated configuration module entirely programmed in **Flex** POJO based domain model integrated with Hibernate ORM for persistence
- **Action Script** coded front end logic for product configuration.
- Integration of Spring Portlet Framework with the Flex based custom components
- Flex based web service clients interacting JAX RPC style remote services

**c. Supply Chain Profile – (Client: Amitive Inc.) (Oct 2008 – Jan 2009)**

**Lead Engineer/Architect**

Supply Chain Profile is a centralized view into the current state of supply chain network for a community deployed on Unity Platform.

**Development Environment:**

Spring, Hibernate, Flex, Flex Builder, Unity Platform, BalzeDS

**Contribution:**

- Gathering business requirements and translating them into technical specifications.
- Integration with the J2EE Services layer of Unity Platform, using Spring application context.
- POJO based domain model integrated with Hibernate ORM for persistence Aggregation of data based on the summarized data of Supply Chain
- Backend model for aggregation of data restricting computations to the backend.
- Configured BlazeDS remote service endpoints coded in Java to provide framework for asynchronous RPC communication between Flex clients and Java services.
- Spearhead the Adobe Flex/Action Script Technology Adoption
- Proof Of Concept for certain data driven real time reporting tools
- Adoption of technology for RIA interfaces for the application

**d. Sync Engine – (Client: Amitive Inc.) (Jun 2008 – Sep 2008)**

**Lead Engineer/Architect**

Synchronization Engine for Amitive is a service that balances the supply chain by matching the demands with the supplies and inventory.

**Development Environment:**

Spring, Hibernate, Unity Platform

**Contributions:**

- Software Design and Implementation of algorithm provided by the business analysts and optimized it for performance and memory consumption.
- Implemented multi threaded synchronization processes, with JMS queues for consumption of Asynchronous requests.
- Implemented the Concurrent Task executor using the java.util.concurrent.Executor and other utilities.
- Integrated the Second Level cache from EHCACHE Implementation for managing recurring requests for improving the performance of the synchronization engine.
- Implemented the interceptor based summarization service, defining Point Cuts for all the critical data persistence transactions, triggered during the business transactions.

**e. Unity Platform – (Client: Amitive Inc.) (Nov 2007 – May 2008)**

**Lead Engineer/Architect**

Amitive's Unity is a SaaS model, multi-tenancy, Community Supply Chain Management application platform that aims to change how the web based Supply Chain Management software applications look and function.

**Development Environment:**

Spring, Hibernate, JBoss, JMS, JIBX, XML, JBoss Rules, JBPM, Junit

**Contribution:**

- Implemented the XML Based Templates Document Model, using the deploy time tools like Ant, to generate schemas based on the XML definition templates.
- Used Hibernate for programmatically generating the data base tables and HBM mapping files, for the community data model setup at the time of deployment.
- Designed and implemented the XML based definition and model generation engine for the UI Framework for dynamic rendering of views (server-side layer),
- Initial design and proof of concept for custom rules framework implemented on top of JBoss Rules, for defining and executing business rules for the communities.
- Implemented the abstract template classes for the Junit testing framework for testing the platform services.

**f. XAP – (Client: GigaSpaces) (Jan 2007 – Oct 2007)**

**Senior Software Engineer**

**Development Environment:**

GigaSpaces 5.3 and 6.0, Java 5.0, JConsole, JMX, Spring, Jini, RMI, C#.NET

**Contribution:**

- Refactoring the applications to leverage GigaSpaces platform for GigaSpaces customers
- Identifying the gaps in the current architecture and desired architecture.
- Breaking down applications into modules that could be configured as processing units.

- Defining the SLA based constraints on the grid for performance.

**g. iBrevia – (Client: iBrevia) (Oct 2005 – Dec 2006) Senior Software Engineer/ Technical Lead**

**Development Environment:**

Pramati Server 5.0, Apache Tomcat 5.5, Spring 1.2, Hibernate 3.0, MySQL 5.0, Junit 3.8, Dojo 1.3, Spring MVC, JAXB, Perl/CGI and AJAX

**Contribution:**

- Requirement Gathering and Analysis
- Development from Pilot to Production
- Design Implementation of the Administration Web Module.
- Spring, Hibernate and Dojo Frameworks based development.

## 4. GoldenSource

**a. Street Director – (Apr 2004 – Sep 2005) Software Engineer**

- Enhancement of high-volume, rules driven business transaction manager that supports the validation, processing, routing, tracking and management of the lifecycle of security, cash and FX trades.
- Product features enhancement and refactoring
- XML Message parsing and validation features implemented
- Unit Tests and System Tests for the use cases.
- Automation

## 5. Patni Computer Systems

**a. PICASSO – (Client:Motorola) (Feb 2003 – Mar 2004) Software Engineer**

- Project Leader for migration of existing Tcl/Tk applications to higher (latest) versions of Tcl/Tk.

**b. Sales Force Automation – (Client:AMSL) (Feb 2002 – Jan 2003) Software Engineer**

- Development of a Server Application on Visual Studio .NET environment, with VC#.NET, as the programming language

**c. Digital Cockpit - (Client:GE) (Sep 2001 – Jan 2002) Software Engineer**

- Code Enhancement for the real-time report generating DES scripts to make them compatible with the upgraded business logic and working environments.
- Managed backup, recovery and verification

### Technologies:

<b>Languages:</b>	JAVA 1.5, ActionScript 3.0, Perl/CGI, PHP, TCL/TK
<b>Front End Technologies:</b>	Flex with BlazeDS, HTML, JavaScript, JSP, DHTML, AJAX
<b>Presentation Frameworks:</b>	Spring MVC, Cairngorm and Swiz Frameworks for Flex
<b>J2EE:</b>	JSP, Servlets, JMX 1.1, Web Services, SOA, JPA, XML, XSD, BlazeDS, Second Level Caching
<b>Server Technologies:</b>	Jboss4.2.3, Pramati Server, Tomcat
<b>Databases:</b>	DB2, Oracle XE, Oracle 11g/10g, MySQL
<b>IDEs:</b>	Eclipse, NetBeans, IntelliJ IDEA
<b>Tools:</b>	Clear Case, Junit, HttpUnit, TOAD, JConsole, JMX, Jini, Drools, JBPM, JBoss JMS
<b>Grid Cloud Computing:</b>	Gigaspaces XAP, Hazelcast

- Strong experience in Hibernate, Spring MVC, SAX, DOM, JAXB, JMS, ANT, LOG4j, JUnit
- Brief web service implementation using JBoss JAX-RPC and RESTEasy
- Presentation layer design and programming on HTML, XML, XSL, JSP, JSTL and Ajax (DWR, Dojo)
- Server side scripting PHP and Perl/CGI
- Experience in memory profiling and performance tuning using tools like JProfiler, JConsole

### Special Interests:

**Website:** <http://www.rishikdhar.com>

**Activities:** Photography, Traveling, Harmonica, Spy Thrillers (Books & Movies)