**Suman Dutta**

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**Professional Summary**

* Architect and Lead with 17 years of experience in various domains like – **Streaming**, **Ad-tech**, **Financial Tech**., **Hi-Tech**, **Airline Reservation**, **Virtualization**, **Incidence** management.
* Responsible for application with 100K+ Users and the peak load of millions of transactions.
* Good **team management skills** with ample tech experience in working with cross-functional and Mult geographical teams& a Strong advocate of Scrum and Agile Methodologies.
* Always participated in Mentoring of subordinates & interns as well as in the hiring process.

**Technical Skills**

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| --- | --- |
| **Methodologies** | Scrum, Kanban, and Waterfall methodologies |
| **JAVA Technologies** | **Java**–11/12/13/14/17, Java Spring boot, Stream, Lambda, Multi-threaded. |
| Event-Based | **Apache Kafka**, **Streams**, JMS, Rabbit MQ |
| Servers | Apache, **AWS lambda**, Node, JBoss, WebLogic, Tomcat |
| UI Technologies | React, Redux, jQuery, PHP, Bootstrap, CSS, Ajax, HTML, JavaScript, Java Swing, Adobe Flex |
| Web services | **SOAP**, **REST**. |
| Framework | **Spring boot**, **Spring Core, Spring MVC, Spring Security**, Event-based, ORM, Actor framework, Struts, MVC. |
| Database | Oracle, Postgres, MySQL, MariaDB |
| No SQL DB | Mongo, Dynamo DB (AWS), Radis, Couchbase, HSQLDB • Build Tools – Circle CI, CI-CD Pipeline, Docker, Maven, Ant, Jenkins |
| Version Control | GitHub, Bitbucket, SVN, Microsoft VSS. |

**Professional Experience**

**Disney+ Ad Stream Sep 2023 – Present**

**Java Architect (Remote)**

**Responsibilities**

* **Designed and architected scalable, high-performance Ad-Tech solutions** for Disney+ and Hulu, focusing on **Advanced Streaming** (DAI, AVOD, SVOD, OTT) and **Ad Delivery Systems** (CPM, Ad Pods, Ad Load).
* Led the development of **internal tools** to optimize Ad delivery and enhance user experience:
* **Duration Manager**: A tool to manage and optimize ad durations, ensuring compliance with platform-specific requirements and **improving ad break efficiency**.
* **Quality Control System**: Developed a real-time quality monitoring system to validate ad content (resolution, bitrate, audio sync) before delivery, **reducing errors by 30%.**
* **Ad Investigator**: Built a diagnostic tool to analyze ad delivery failures, providing actionable insights to reduce ad **drop rates by 25%.**
* Collaborated with cross-functional teams (Product, Data Science, and Operations) to define technical requirements and deliver solutions that align with business goals.
* Spearheaded the migration of legacy Ad delivery systems to **cloud-native architectures (AWS)** using **microservices**, **Kafka**, and **DynamoDB**, improving system scalability and reducing latency by **40%**.
* Implemented **real-time analytics dashboards** using **Splunk** and **Tableau** to monitor ad performance metrics (CPM, completion rates, and viewer engagement).
* Mentored a team of **10 engineers**, fostering a culture of innovation and continuous improvement.

**Key Achievements**

* **Increased Ad Revenue:** Optimized ad load and pod configurations, resulting in a **15% increase in ad revenue** for Disney+ and Hulu.
* **Improved Ad Delivery Efficiency:** Reduced ad delivery failures by **20%** through the implementation of the **Ad Investigator** tool.
* **Enhanced User Experience:** Improved ad break transitions and reduced buffering time by **25%** through the **Duration Manager** tool.
* **Scalability:** Architected a system capable of handling **millions of concurrent users** during peak streaming events (e.g., premieres, live sports).

**Environment :**

**Java, AWS, React, Kafka, Lambda, Jenkins, Github, Spinnaker, Jira, Redux, Spring boot, Microservice, Terraform, Datadog, PagerDuty**

**Happy Money Inc, CA, Oct 2020 – Sep2023**

**Staff Engineer / Java Architect (Remote)**

**Responsibilities:**

* **Designed and architected the Zero Touch Funnel**, a **highly fault-tolerant, loosely coupled, and resilient Automated Loan Verification System**, which increased loan verification rates by **40%** and approval rates by **~20%**, contributing an additional **$10M in revenue**.
* Led the end-to-end development of the system, from conceptualization in **Lucid Chart** to production deployment, ensuring seamless choreography between loosely coupled microservices.
* **Technical Leadership:** Spearheaded a team of **10 distributed engineers**, providing technical guidance, mentoring, and fostering a culture of innovation and collaboration.
* **System Architecture:** Designed and implemented a **cloud-native architecture** using **AWS (Lambda, DynamoDB)**, **Kafka**, and **Spring Boot**, ensuring scalability, reliability, and low-latency performance.
* **CI/CD Integration:** Collaborated with the infrastructure team to establish robust **CI/CD pipelines**, enabling rapid deployment and continuous integration of new features.
* **Cross-Functional Collaboration:** Worked closely with **Salesforce**, **Data Warehouse**, **Data Science**, and **Product teams** to align technical solutions with business goals and user needs.
* **Agile Practices:** Maintained **Scrum boards**, resolved technical impediments, and ensured timely delivery of milestones, including the **MVP release within one quarter**.
* **Technical Debt Management:** Led efforts to upgrade the system, remove technical debts, and eliminate **Launch Darkly** feature flags, improving system stability and maintainability.
* **Monitoring & Analytics:** Implemented advanced **log analysis**, **dashboard integration**, and **PagerDuty monitoring** to ensure system reliability and rapid incident response.
* **Team Development:** Played a key role in **hiring**, **mentoring**, and maintaining a high-performance team, including participation in **PIP (Performance Improvement Plans)** and resource alignment with company goals.

**Key Achievements**

* **Zero Touch Funnel Success:** Delivered a fully automated loan verification system that significantly improved operational efficiency and revenue growth.
* **Scalability:** Designed a system capable of handling **millions of loan applications** annually, ensuring high availability and fault tolerance.
* **MVP Delivery:** Successfully delivered the **MVP within one quarter**, followed by iterative improvements and technical debt removal.
* **Team Leadership:** Built and mentored a high-performing team of **10 engineers**, fostering a culture of innovation and accountability.

**Environment :**

**Java, AWS, Kafka, Postgres, Microservice, Jenkins, Github, Docker, Spring boot, Spring Security, Terraform, Datadog, PagerDuty**

**PagerDuty, CA, US Sep 2019 – Oct 2020**

**Java Technical Lead (San Francisco, CA)**

**Responsibilities:**

* Made some **major enhancements in the Customization** of the Team incident Page.
* **Developed a Queue-based rate limiter solution** for a disparity in the incidence produced and consumed by consumers.
* Expert in working – Scrum, Agile, and Kanban.
* **Mentored** two Interns in the team.
* Responsible for taking technical design decisions and junior team mentorship.
* Planned and executed major migration of Elastic Pipeline for implementing better search.

**Environment :**

**Ruby, Rails, Erlang, AWS, Kafka, MySQL, Microservice, Hashicorp, Github, Docker**

**Oracle America Inc., CA, Sep 2016 – Sep 2019**

**Sr. Software Engineer (RedWood Shores, CA)**

**Responsibilities:**

* + **Oracle Linux & Upgrades:** Spearheaded the implementation and upgrade of **Oracle Linux** across enterprise environments, ensuring seamless integration with existing systems and minimizing downtime.
  + **Oracle Virtualization Manager & Enterprise Manager (OEM):**
    - Designed and implemented integration solutions between **Oracle Virtualization Manager** and **Oracle Enterprise Manager (OEM)**, enabling end-to-end IT infrastructure management for databases, middleware, hardware, and cloud environments.
    - Developed custom **monitoring plug-ins** to extend OEM’s capabilities to support **third-party technologies**, enhancing the tool’s versatility and adoption.
    - Fine-tuned **agent-based monitoring systems**, optimizing data collection and reporting processes to improve system performance and reduce resource overhead.
  + **Legacy System Modernization:**
    - Designed and developed a **Parsing Engine** in **Java** and **Perl**, replacing a legacy script-based application. This modernization effort improved processing speed by **40%** and reduced maintenance costs by **30%**.
  + **Client Collaboration:** Worked directly with high-profile clients such as **NASA** and **Bank of America**, addressing escalated issues, providing technical solutions, and ensuring the stability and performance of their Oracle environments.

**Key Achievements**

* + **Enhanced Monitoring Capabilities**:Developed custom OEM plug-ins, enabling support for third-party technologies and improving the tool’s adoption across diverse IT environments.
  + **Legacy System Replacement**:Delivered a modern **Parsing Engine**, significantly improving processing efficiency and reducing maintenance costs**.**
  + **Client Success**:Resolved critical issues for high-profile clients like **NASA and Bank of America**, ensuring the stability and performance of their Oracle systems**.**
  + **Performance Optimization**:Fine-tuned agent-based monitoring systems, reducing resource overhead and improving data collection efficiency.

**Environment :**

**AWS Cloud (EC2, EKS, ECS, S3, VPC, Route53, Lambda, and Code Pipeline), Oracle Cloud, Linux, Jenkins, GitLab, Jira, Confluence, Ansible, WebLogic, Terraform, CloudFormation, Ansible, GitHub Actions.**

**Apple Inc., CA, June 2012–Sep 2016**

**Team Lead (Sunnyvale, CA)**

**Responsibilities:**

* + **Led a globally distributed team of 10 engineers** across **California, Austin, and Delhi NCR (India)**, responsible for the development, delivery, and maintenance of critical applications on the **Apple Support Portal** ([https://support.apple.com](https://support.apple.com/" \t "_blank)).

**Key Applications Delivered:**

* + - **Check Coverage Application**: Developed from scratch, enabling users to verify Apple product warranties and support eligibility.
    - **Apple Store Search Application**: Designed and delivered a robust search tool for the Apple Store, improving user experience and search accuracy.
    - **Callback & Replacement Suite**: Managed the middleware for Apple’s callback and replacement programs, ensuring seamless integration with backend systems.

**Globalized Solutions:** Delivered highly globalized applications supporting **20+ languages**, ensuring compliance with localization requirements and maintaining consistent user experience across regions.

**Security & Performance:**

* + - **Implemented API security and web application security** measures to prevent vulnerabilities and ensure compliance with Apple’s stringent security standards.
    - **Conducted performance tuning** and resolved **memory leak issues**, improving application stability and reducing downtime.
    - **Analyzed and resolved P1/P2** issues efficiently, ensuring minimal disruption to end-users.

**Project Leadership:**

* + - **Collaborated with the Product team** to understand **requirements**, conduct feasibility studies, and develop **project skeletons**.
    - Maintained a Scrum team to ensure high-quality, on-time delivery of features and enhancements.
* **Black Projects:** Single-handedly managed **confidential projects**, including the **Returns and Exchange Program**, ensuring seamless execution and alignment with Apple’s business goals.
* Monitoring & Analytics:**Utilized**Splunk**for advanced log analysis and created**data dashboards**to monitor application performance and user behavior.**

**Environment:**

**AWS Cloud (EC2, EKS, ECS, S3, VPC, Route53, Lambda, and Code Pipeline), Oracle Cloud, Linux, Jenkins, GitLab, Jira, Confluence, Ansible, WebLogic, Terraform, CloudFormation, Ansible, GitHub Actions.**

**Sabre Holdings Apr 2006 – May 2012**

**Software Engineer (Southlake TX, USA)**

**Responsibilities:**

* + Single handedly managed team of size 4 and responsible for delivery and releases of product.
  + Responsible for development of applications using Adobe Flex, with backend in Java.
  + Enhanced existing reporting application to support many new customers & increasing its capacity, via multithreading.
  + Developed robotic apps, to consume messages from JMS Queue & then parsing data to insert into Teradata DB.
  + Developing application that consumes – SOAP Based Sabre web services needed for pricing in booking engines.
  + Increased efficiency of the application, by optimizing queries & SPs.
  + Good knowledge of Airline Domain & Passenger fare system.

**Environment:**

**Linux, Jenkins, Github, Jira, Confluence, Ansible, WebLogic, Ansible , Jenkins**

**Education/Certification**

* Master of computer application in Jan 2003 – Dec 2005 from Indira Gandhi National Open University, India
* Bachelor of computer application in Jan 2000 – Dec 2003 from Indira Gandhi National Open University, India