

## Objective:

With 18 years of software engineering experience (data-modeling, data-architecture, system-design, microservices) primarily looking for opportunities in data architecture role to build solutions for data centric Machine learning, Deep learning and AI business problems

### Data Architecture & AI Tools: theoretical/self-learning/exploring

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- Data Pipeline & Architecture Tools : Spark (data processing), Delta Lake, Data Lakehouse
- Storages(conceptual): column oriented(aws redshift), key-value(aws dynamo db), timeseries(non stationary), graph database
- AI Tools : pytorch, Spring AI, deeplearning4j

### Technical Tools: Hands on, with solid grip on data-modeling, microservices, system-design

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- **Java Ecosystem:** Java(extensive), jdbc, Springboot, multi-threading
- **Storage/operational-datastores:** Object/file stores (aws s3), SQL, (row-oriented postgres/oracle), object-oriented(versant-db)
- **Cloud Exposure:** AWS services – storage platforms (S3, Aurora), compute (lambda, ECS)
- Other essential Tools: git, bash, maven

### Experience Summary:

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- **System Design & Architecture** – 18 y of software engineering java experience with research-first mindset have solid grip on building low-cost scalable system designs, looking through architectural-context, building polyglottic microservices governing storage with DDD, very good at decomposing services and sub-domains, applying just enough design, evaluating tradeoffs, system integrations from static to dynamic to 2d matrix api, evaluating/leveraging cloud FAAS, PAAS, decoding linear-equations to be automated, refactoring
- **Business Domain** Exposures(years) - Aerospace (5.3), Financial (2.8), Telecom (5), Retail (4)
- **Data Architecture & Modeling** – Generally very good at evaluating/trading off at row/column, fine/coarse-grained, transactional/analytical, no-sql(20 to 80% of dynamic-attributes) with primary objective to get a natural fitness model closer to the business use case. Very good at identifying and embedding primary core domain attributes in the schema/partition to be modeled
- **Data Structures** – Have successfully led the design of many reusable components, built foundational-structures leading to reduction 60 to 80% of development time, leveraging object-oriented design principles, custom tailored patterns
- **Multi Threading & Concurrency** - Hands on experience to concurrency, parallelism leveraging on core domain attributes and sometimes even avoidance as per the DDD or trading off to leverage over free stateless-http
- **Algorithms(linear/deterministic)** - Solid grip on building custom-tailored algorithms for the business-use-cases with big O(1), log(n), O(n) as primary objective. have been successful in a couple of recent projects to find computational time in a more deterministic way closer to 2 to 10 seconds for processing thousands to millions of records leveraging system/network/IO calls/nosql data model
- **Troubleshooting** - tuned several critical performance issues, primarily observing the system behavior over system/network/io calls, wrong tool usage, significantly reducing computation time 20% to 70%
- **Communication** – generally good at pushing/awareness/ right to left on system design, performance & security across top to bottom stakeholders' resistance from BAs, product owners, developers, QAs

- **Teaching** - Love to advocate/mentoring on building fine grained microservices, system design, decomposing core of the problem, math on scaling, cost w.r.t effort/opportunity/financial, DDD

### Experience Summary:

Oct 2018 - Jan 2024	<a href="#">Ge Aerospace</a> , Bengaluru, Staff Software Engineer, 5.3y
Apr 2016 - Jul 2018	<a href="#">Wipro</a> , Bengaluru, Architect, 2.3y
Dec 2009 - Mar 2016	<a href="#">Computer Sciences Corporation(DXC Technology)</a> Bengaluru, System Analyst, 6.3y
Jun 2005 - Sep 2009	<b>Tomax India</b> ( <a href="#">Demandware</a> ), Bengaluru, Software Developer, 4.3y

### Education:

**Bachelor of Engineering** (B.E.), Information Science, 2000-2004, BIET, [Visvesvaraya Technological University](#)

### Work Experience 4: [Ge Aerospace](#), Staff-Software-Engineer – 5.3 years - Oct 2018 – Jan 2024

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- **Data Strategy:** had an opportunity to study/explore **defensive-data-strategy** (HBR) to a cost-pillar suite of applications (5 to 6), data modeling exploration & **proposal** for each GE's engine product line, engine modules and maximize on the topmost/upstream application
- System-ClearviewBilling-InvoiceReconciliationModule: built a **scalable system-design** to reconcile 12-month invoices with a **low-cost** (aws-s3 leveraged) no-sql(80% dynamic attributes and coarse-grained) store processing thousands of items in 2 to 10 second times. This impacts business with \$400 million monthly invoice to GE-engine Servicing-sector.
- System-CostModel-ModulebyWorkscope: built a scalable system-design to rollup cost for NewProductInduction(Leap, Genx, Ge9x) with a low-cost (aws-s3) no-sql store processing lakhs of records in few seconds, **leverage core domain attributes for partitioning** on data for scaling till life of contract (10-30 years)
- System-ClearView-Contract-Margin-Review: designed restful services for a downstream system integration **leveraging aws-lambda with SLA of < 2seconds**. The SLA was thoroughly tested with JMeter with concurrency of 1000 requests. Designed an extensible template pattern for workflow-template-standardization module securing for future system-integration and evolution of workflow-template

### Work Experience 3: [Wipro](#), Architect, 2.3 years - Mar 2016 – Jul 2018

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- Key developer, primarily involved in troubleshooting, maintenance, decoding the 2phase-commit transactions on a library which acted as crud wrapper an object-oriented database (Versant) for more than 50 plus dependent applications on Ericsson OSS telecom which heavily relied on a custom event-channel-notification tracker system
- Tuned cs consistency check tool and **improved 23%** by tuning file IO, tweaking memory handling.

### Work Experience 2: Computer Sciences Corporation, System Analyst, 6.3 years, Dec 2009 –Mar 2016

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Client: **Societe Generale – Investment Banking**, Mar 2013 – Mar 2016

- **Led** the key design of web services on **Bancs CA Initialization tool**, built a reusable workflow algorithm for resulting **90% reduction** in development time, for aggregation of thousands of positions/movements of stocks
- **Designed** real time Bancs **Trade Update workflow of ISI**
- Tuned a performance issue on security integration taking 10 min to less than a minute, related to dependency injection
- **Led** the migration of **ant to maven** resulting 80% of reduction in build time and reduced the tar size by 70% by resolving all hard links by relative path, **Redesigned** a master **shell script** & resolved class paths for 1050 jobs
- **Evaluated** **JDBC** calls over **Asset Control** api and reduced 30% delay in suspect management
- **Implemented** diffusion of instruments based on template configuration which resulted in balancing the load by 40% during expiration of future/options
- Initiated automation of **job reporting** tool and saved 50% resource utilization per UAT

Client: **Verizon Telecom US**, Dec2009 – Dec 2012

- **Redesigned** the initial flow of BlackBerry application which resulted in removing the login delay by 50% optimizing system calls
- **Implemented** GPS update location timer for BlackBerry application
- **Designed xml DB schema** for static data of jobs (xl sheet) which could be pulled by multiple vmobile clients(BlackBerry and laptop)
- **Led** the team on design **and conversion** of field technician's BlackBerry mobile app to a desktop/laptop application, which became big success on going live, look and feel of UI was well appreciated
- **Designed** a generic Jtable model and view component framework, extensible jobs bucket component which reduced the dev time by 80% due to its extensibility and abstraction of common tasks

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#### **Work Experience 1: Tomax India (Demandware), Software Developer, 4.3years Jun 2005 - Sep 2009**

- **Implemented** an appointment scheduler for Les-Schwab-Tires(US- 400+ stores) with an iterative Customer Experience Architecture a prototype based approach
- **Implemented** (SKU) inventory lookup screen and was picked up for using as common component across the projects
- **Built** - an experimental software-library for Tomax, hierarchical compliance report for retail store & HQ using swing table-tree, workflow-activity management screens
- **Trained and coordinated** extensively with offshore team on UltraLightClient(server side swing) and made it productive in 3 months