PROFILE SUMMARY

Staff Software Engineer with strong expertise in design principles and a passion for architecture. Currently contributing at Walmart, specializing in Java and multiple programming languages. Skilled in DevOps, SecOps, and GitOps practices, with experience in blockchain technology and AI Technologies. Actively engaged in research and development, with a commitment to continuous learning and innovation.

PRABHU PRABHAKARAN

STAFF SOFTWARE ENGINEER

Chennai, India

14 Years 2 Months of experience

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WORK EXPERIENCE

Staff Software Engineer

Walmart

Jul 2020 - Present

- Architected and led the development of a large-scale Digital Citizenship privacy platform, enabling consumer data rights (access, delete, opt-out) for millions of users, ensuring compliance with data protection regulations.
- Designed a multi-tenant architecture supporting 6+ international markets with isolated configurations, secrets, storage, databases, and Kafka contexts, accelerating global rollout by 30%.
- Reduced data merging time from 7 days to 30 seconds by implementing Apache Lucene indexing, improving operational efficiency by over 99%.
- Developed reusable frameworks standardizing dependencies across systems, enhancing developer productivity and system consistency.
- Engineered event-driven microservices using Azure, Kafka, and Kubernetes, setting architectural standards across privacy domains to improve scalability and maintainability.
- Collaborated with business, legal, and compliance teams to translate regulatory requirements into scalable, compliant technical solutions.
- Executed critical platform migrations (CCM2, WCNP), optimizing platform costs by 20% through detailed usage analysis and automation initiatives.
- Mentored engineering teams and established cloud-native best practices, leading to organization-wide adoption and improved code quality.
- Enhanced API latency by 40% through caching strategies and query optimization, achieving sub-100ms processing times at high transaction volumes.
- Built enterprise-grade CI/CD pipelines using Jenkins and SONAR with zero-downtime deployments and rapid recovery capabilities, increasing deployment frequency by 50%.
- Led microservice development employing Spring Boot, Spring Cloud,

and Kafka on Azure, ensuring scalable, resilient, and high-availability systems.
- Designed RESTful APIs, optimized complex SQL/HQL queries, and integrated Cosmos DB to efficiently manage large-scale unstructured data sets.
- Implemented a disaster recovery framework with a 15-minute recovery objective, ensuring robust business continuity and minimizing downtime.
- Developed containerized Spring Boot microservices using Docker, Kubernetes, and ISTIO for enhanced security, observability, and service mesh capabilities.

Technical Lead
TPF Software India
Mar 2015 - Jul 2020

- Led a cross-functional team of 15+ engineers on the zTPF Modernization platform for Travelport and Delta Airlines, defining architecture and modernization roadmaps that improved system efficiency by 30%.
- Established enterprise-wide engineering standards, code review protocols, and SDLC governance, enhancing process consistency and reducing defects by 25% across diverse platforms.
- Architected scalable, resilient end-to-end systems for source management, workflow automation, and deployment orchestration, strengthening the enterprise zTPF ecosystem.
- Conducted technical proofs of concept and architectural assessments to align solutions with business objectives, enabling scalable and future-proof system designs.
- Directed performance optimization and legacy code refactoring, boosting system scalability, throughput, and maintainability by 40%.
- Designed and developed RESTful microservices leveraging Spring Boot, cloud technologies, and MVC frameworks, enhancing modularity and promoting service reusability.
- Developed comprehensive unit and automation test suites using JUnit, Mockito, and Selenium, increasing code reliability and decreasing post-release defects by 30%.
- Automated CI/CD pipelines with Jenkins, Groovy, Maven, and ANT, accelerating deployment cycles and ensuring seamless continuous integration and delivery.
- Monitored application performance through Nagios, JMeter, and Dynatrace; led benchmarking and load testing initiatives to optimize system reliability and responsiveness.

Software Engineer
HCL Technologies Limited
Jan 2014 - May 2015

- Developed and optimized robust Java enterprise applications tailored to complex Engineering Research domain requirements, enhancing system reliability and performance by up to 30%.
- Designed and implemented the KT-GEM communication interface protocol for KLA-Tencor wafer inspection systems, improving data exchange efficiency within semiconductor FAB environments by 20%.
- Executed SEMI/GEM (SECS/GEM E30) standard connectivity solutions, ensuring seamless equipment-to-host integration and facilitating automated manufacturing workflows.
- Created and maintained core interfaces using Java, Eclipse SWT, JMS, and C/COM technologies, effectively integrating wafer fab automation systems to streamline operations.
- Delivered comprehensive equipment control functionalities, including process start/stop, measurement data acquisition, variable tuning, and recipe management, resulting in a 25% increase in operational efficiency.

Software Engineer

- Designed and developed the Dolphin Trading Platform, a core trading

KG Financial Software Pvt Ltd
Oct 2011 - Jan 2014

system for institutional traders and brokers, integrating advanced order and risk management, algorithmic trading, and real-time analytics using Java, FIX protocol, NIO, JMS, JMX, and NetBeans RCP, resulting in a 30% increase in trading efficiency.
- Developed the Omgeo CTM Integration platform to automate trade confirmation for cross-border and domestic equity, fixed income, repo, derivative, and synthetic swap transactions. Leveraged Java, XML parsing, and BPM integration to reduce manual processing time by 40%.
- Created the CIP Engine, an HL7 integration engine SaaS platform enabling real-time healthcare data exchange for physician practices and healthcare organizations, decreasing implementation costs by 25% and simplifying deployment complexity.
- Engineered financial message parsing and processing systems for ISO 8583, FIX, and proprietary formats, improving transaction processing speed and accuracy by 20%.
- Implemented comprehensive unit testing frameworks, conducted performance tuning, and enhanced system reliability across multiple applications, achieving a 35% reduction in system downtime and significantly boosting product stability.

KEY SKILLS

- Kubernetes
- Networking
- Spring MVC
- Lucene
- Java
- Maven
- GIT
- DevOps
- Jenkins
- Docker
- Linux
- Kafka
- Azure Cloud
- SQL
- Python
- Agentic Ai
- MCP
- Artificial Intelligence
- Costing
- Problem Solving
- Innovation
- Agile Methodology
- Node
- Shell Scripting
- Component Design
- Enterprise Architecture
- Developer Tools
- Automation

LANGUAGES

English

EDUCATION

| 2010 | **B.Tech/B.E. - Information Technology** |
| | Annamalai University, Chidambaram |

PROJECTS

Digital Citizenship

60 Months

The Privacy Platform is a scalable, multi-tenant application designed to process millions of data subject requests across global regions. It ensures compliance with diverse regulatory frameworks, including CCPA, VDCPA, Bill 64 and Others, through automated workflows, policy-driven request handling, and granular audit trails. The architecture supports multi-region deployment, data isolation by tenant, and advanced security controls for identity verification and activity logging. Integrated analytics and reporting modules provide operational visibility and compliance metrics in real time.

zTPF Modernization

54 Months

The zTPF Modernization Tool is an integrated platform designed to streamline and automate the end-to-end SDLC for z/TPF environments. It optimizes source code management, development, integration, testing, and deployment workflows by incorporating modern DevOps practices. The tool supports all lifecycle phases—planning, development (checkout, check-in, code review, integration), testing, approvals, scheduling, and deployment—with built-in automation, CI/CD capabilities, and governance controls. This modernization enhances developer efficiency, code quality, and operational consistency within z/TPF systems.

Tamil
Telugu

Awards

- **Global Techathon**
  Winner of the Walmart Global Techathon in 2021

- **Badgifys**
  Got 25 Badges

- **Walmart Awards**
  Got Bravo Awards and Excellence Awards

SOCIAL LINKS

https://www.linkedin.com/in/prabhuprabhakaran

Research Analysis

12 Months

Research Analysis (RA) application is the only simple-to-use, modern tool, which helps to graphically view the z/TPF segments and the Cross References of segments and calls, including forward and backward references, for better impact analysis of code changes in z/TPF or zLinux platform. This application supports most of the file types - ASM, C/CPP, SabreTalk etc., macros such as user-defined macros and IBM macros, .SOs, and globals.
This application enables the programmers to graphically view the code segments to be impacted, either forward or backward, in a tree-view structure more quickly, and to directly view the source with macro and global references, .SO references, C/CPP source codes, without switching to other applications.

KT-GEM

15 Months

KT-GEM is a communication interface protocol for the wafer inspection systems in FAB. It provides equipment manufacturers with a SECS/GEM connectivity solution that eases the task of equipment-to-host communication implementation, while complying with the SEMI generic equipment model (GEM) standard and supports the SECS/GEM capabilities as specified in the latest published SEMI standard E30. In an automated FAB, the interface can start and stop equipment processing, collect measurement data, change variables and select recipes for products.

Dolphin Trading Platform

27 Months

Dolphin Trading Platform offers all the functionalities that an Institutional Trader/Broker would require. It is built around the needs of an active trader to empower the trader over order management, Risk Management, Algo-Trading, and have a straight through processing through our own Back office solutions.