CONTACT

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SKILLS

- Java
- Spring Boot
- ReactJS
- TailwindCSS
- JavaScript
- AWS
- Kafka
- GitHub Actions
- SQL
- Next.js

Balasubramanian Shanmugham

Chennai, India │ https://github.com/balasus1

Experienced software engineer and solution architect with over 20 years of expertise in building scalable, high-performance applications using Java, J2EE, Scala, and modern front-end technologies including ReactJS and Redux. Extensive experience in designing and developing distributed systems with a focus on performance optimization, scalability, and resilience. Over 7 years of front-end development proficiency, delivering rich, interactive web applications with ReactJS and state management using Redux. Strong background in architecting RESTful and SOAP-based APIs, leveraging Spring Boot with RestTemplate and WebClient for seamless integrations. Proficient in AWS cloud infrastructure, big data processing, ETL automation, and modern DevOps practices.

PROFESSIONAL EXPERIENCE

BAHWAN CYBERTEK PVT LTD (CLIENT: RBI, REBIT)   Navi Mumbai, India
Technical Architect   Jan 2025 - Present

- Designed a robust front-end using ReactJS and TypeScript, offering intuitive job configuration, monitoring, and control features with real-time status updates.
- Developed and maintained scalable Spring Boot backend services to manage job metadata, lifecycle operations, and execution pipelines.
- Implemented REST API integration for synchronous job triggering, while introducing Kafka-based asynchronous fallback processing to ensure resilience during HTTP failures.
- Designed a retry mechanism that seamlessly switches from HTTP to Kafka message queues for job command delivery, increasing fault tolerance in distributed environments.
- Built a batch reprocessing module to handle failed or delayed commands using a remoteJob library—executed periodically to reconcile job states and maintain system integrity.
- Supported features such as job chaining, conditional triggers, recurrence patterns, and execution history tracking for flexible job orchestration.
- Enforced enterprise-grade RBAC and audit logging for compliance, traceability, and controlled access to scheduler operations.
- Optimized performance through intelligent caching, efficient database interactions, and background processing for job health checks and alerting.
- Managed CI/CD workflows via Jenkins, with source control and code reviews on Git, ensuring delivery quality and pipeline efficiency.

BAHWAN CYBERTEK PVT LTD (CLIENT: NCRTC)   Delhi / Chennai, India
Senior Backend developer   Oct 2021 - May 2022

- Developed a real-time data integration system by interfacing securely with government servers and handling client-server communication using Java socket programming.
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- Designed and implemented Java socket-based communication with secure government servers to receive and transmit real-time train data to client TX endpoints.
- Engineered a real-time data feed mechanism to continuously extract, process, and display accurate train movement and schedule information.
- Built a modular Spring Boot application template with clean separation of concerns across ticketing, passenger information, and route management modules—enabling future scalability and maintainability.
- Integrated database access (JPA/Hibernate), security modules (Spring Security), and API layers with pre-configured templates for rapid development.
- Containerized the application using Docker for seamless local development and environment parity across teams.
- Implemented CI/CD pipelines with Git-based version control, automated builds, and deployments to improve delivery velocity and collaboration.
- Provided thorough API documentation using Swagger/OpenAPI and internal developer guides to ensure consistent integration and onboarding.

BAHWAN CYBERTEK PVT LTD (CLIENT: SHOP, BARNES & NOBLE) Chennai, India
Senior React Developer   Jan 2019 - Oct 2021

- Played a key role in building a feature-rich, responsive e-commerce UI integrated with LMS, a merchandising system similar to Amazon.
- Translated designs from Figma/Zeplin into pixel-perfect ReactJS components with a focus on reusability and maintainability.
- Developed core UI components including modular content pods, interactive carousels, combined curated lists, trending product sections, and specialized sections for eBook and Audiobook categories.
- Implemented a Favorites feature allowing users to select preferred categories to personalize content delivery.
- Integrated a recommendation engine that dynamically generates personalized product suggestions based on user favorites and interaction history.
- Validated backend APIs with Postman and integrated them seamlessly into the UI using Axios for robust data handling.
- Managed build and deployment pipelines with Jenkins, producing artifacts consumed by both Android and iOS native apps.
- Collaborated extensively with cross-functional teams including cloud assembler, product data, and stakeholders to align on requirements and deliver business value.
- Maintained code quality through Stash and Fisheye-driven peer reviews and actively contributed in Scrum ceremonies and feature demos.

BAHWAN CYBERTEK PVT LTD (CLIENT: TRANZACT)   Chennai, India
Senior Java developer   Nov 2018 - Jan 2019

- Architected Apache Spark pipelines to process and transform streaming data from Kafka topics, persisting results into HBase and Hive using DataFrames.

- Tuned performance across Spark, Kafka, and Hive by analyzing schema design, optimizing serialization, and tuning batch/partition settings.
- Built reusable Java and Scala utilities to handle high-volume bulk CRUD operations on streaming datasets, ensuring reliability and reusability.
- Designed and implemented monitoring dashboards and health checks using Spark metrics, Kafka consumer lag monitoring, and Hive query performance tracking.
- Integrated observability tools like Grafana and AWS CloudWatch for proactive alerting, trend analysis, and SLA adherence.
- Enabled end-to-end traceability and operational visibility, significantly improving system stability and incident response times.
- Collaborated cross-functionally with data science and infrastructure teams to align system design with business needs and scale requirements.

GENPACT INDIA PVT. LTD (CLIENT: MORGAN STANLEY)   Bangalore, India
Senior Java developer   May 2014 - Jul 2018

- Designed and optimized a distributed system to capture and process multi-channel client interactions and forward them to downstream systems (Rolodex).
- Built a high-throughput processing engine to handle 12 million interaction records across 6 servers and 3 nodes, using 18 Java instances orchestrated via UC4 scheduler.
- Captured and processed interactions from multiple channels—emails, SMS, phone calls, and chat messages—between clients and internal/external participants.
- Leveraged Java concurrency and database table partitioning to improve batch write performance by 4x, enabling real-time throughput of 7,000 interactions per second.
- Ensured seamless delivery of processed interaction data to downstream Rolodex systems for further enrichment and integration.
- Delivered all performance and reliability enhancements with zero production defects, ensuring stability and consistency across environments.

EDUCATION

PONDICHERRY UNIVERSITY   Pondicherry, India
Bachelors of Technology in Electrical & Electronics   2000 - 2004

IIT CHENNAI   Chennai
Advanced Cloud Computing, Blockchain & IOT   2021 - 2022

Successfully built production quality blockchain application as part of Advanced Cloud Computing, Blockchain & IOT programme conducted by GreatLearning with IIT Chennai